County Council of Salop.

REPORT

BY THE

COUNTY MEDICAL OFFICER OF HEALTH

ON THE

VITAL STATISTICS AND SANITARY CONDITION

OF SHROPSHIRE

DURING THE YEAR 1916.

JAMES WHEATLEY, M.D., D.P.H.

SHREWSBURY,

December, 1917.

INDEX.

TO THE CHAIRMAN AND MEMBERS OF THE PUBLIC HEALTH AND HOUSING COMMITTEE OF THE SALOP COUNTY COUNCIL.

GENTLEMEN,

I have the honour to present my Annual Report for 1916.

In accordance with the general directions of the Local Government Board and the policy adopted by the County Council, the report for 1916 has been greatly abridged. Many statements which have been made each year, and which are essential for a complete review of the sanitary condition of the County, are omitted from this report. For these details reference should be made to previous reports.

The war has greatly emphasised the importance of improving the physical condition of the people. It should therefore be clearly recognised that any relaxation of sanitary measures, due to war conditions, should only be temporary and should be followed by still greater efficiency after the war.

The Government have shown the importance they attach to the preservation of infant life and the improvement of the health of the child, by making the Notification of Births Act compulsory and by urging upon authorities to put into operation schemes of infant welfare even during war time.

Some branches of sanitary work have necessarily been curtailed owing to scarcity of labour and the policy of the Local Government Board of discouraging expenditure on new works unless they are of pressing necessity for reasons of public health (L.G.B. letter, March 25th, 1916).

In a circular letter dated August 4th, 1915, the Local Government Board suggest " that, whilst not unduly relaxing the standard of public health administration in their area, local authorities should as far as possible, refrain from requiring the execution of work, the cost of which has to be borne by private individuals, unless the work is urgently necessary for the removal of nuisances or for the protection of health."

Where the responsible sanitary officials have been engaged on military services the work must necessarily have suffered, but in the remaining districts where there are no duties in connection with the military forces, curtailment of the work in one direction has no doubt allowed more time to be devoted to those branches of the work in which the expenditure of large sums of money is not required.

The Medical Officers of Health engaged in military duties are :—

Dr. Fenton, Shrewsbury.
Dr. Padwick, Bridgnorth Rural District.
Dr. Griffiths, Teme Rural District.

And the Sanitary Inspectors :—

Mr. B. P. Chadwick, Bishop's Castle Urban District.
Mr. William George Lane, Ludlow Urban District.
Mr. W. Marsh Gwillim, Ludlow Rural District.
Mr. W. Cotterill, Drayton Rural District.
Mr. J. E. C. Leach, Ellesmere Rural District.

Other medical officers of health have had part time military duties or being in general practice have had to take over the work of other practitioners called up for medical service.

The military camps at Park Hall and Prees Heath have thrown considerable extra work on the sanitary officials of the Oswestry and Whitchurch Rural Districts.

The delay in publication of this report is due to the fact that some of the district reports were not received until the fourth quarter of the year.

I am, Gentlemen,

Your obedient Servant,

JAMES WHEATLEY.

COUNTY HEALTH DEPARTMENT,
COUNTY BUILDINGS,
December, 1917.

CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE IN THE ADMINISTRATIVE COUNTY OF SALOP, 1916.

CAUSES OF DEATH.	AGGREGATE OF URBAN DISTRICTS.																AGGREGATE OF RURAL DISTRICTS.													
	All Ages.		0—		1—		2—		5—		15—		25—		45—		65—		All Ages.		0—		1—		2—		5—		15—		25—		45—		65—	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ALL CAUSES	770	779	94	75	19	14	33	28	24	38	20	34	77	89	175	161	328	360	821	841	66	64	18	12	15	21	11	34	26	26	92	81	180	157	413	446
1.—Enteric Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
2.—Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3.—Measles	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
4.—Scarlet fever	3	2	..	..	..	..	2	..	..	..	..	..	..	..	1	..	..	2	..	3	..	..	..	1	..	1	..	1	..	..	..	..	..	..	..	..
5.—Whooping cough	8	7	5	5	2	1	1	1	..	..	..	..	..	..	..	..	..	..	10	6	5	3	4	2	1	1	..	..	..	..	..	..	..	..	..	..
6.—Diphtheria and croup	6	15	..	..	..	..	5	10	1	5	..	..	..	..	..	..	..	..	7	9	..	..	2	..	3	4	2	5	..	..	..	..	..	..	..	..
7.—Influenza	15	25	1	..	..	..	..	..	..	1	..	..	1	..	4	8	9	16	35	28	..	3	..	..	1	2	..	..	2	3	6	2	7	1	19	17
8.—Erysipelas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..
9.—Pulmonary tuberculosis	48	58	..	..	..	..	..	..	2	3	8	8	28	32	8	14	2	1	52	48	..	..	..	..	..	..	..	4	3	11	24	21	21	9	4	3
10.—Tuberculous meningitis	6	6	..	..	1	..	4	2	..	1	..	3	..	..	1	..	..	..	7	6	..	1	2	1	2	2	2	1	..	1	..	..	1	..	..	..
11.—Other tuberculous diseases	11	12	..	1	1	1	2	1	3	2	..	2	2	4	3	..	..	1	8	3	2	..	..	..	..	1	..	1	2	..	1	..	2	..	1	1
12.—Cancer, malignant disease	61	89	..	..	..	..	..	1	..	..	..	..	1	8	31	43	29	37	69	87	..	..	..	..	..	..	..	1	..	1	4	4	26	41	39	40
13.—Rheumatic fever	2	2	..	..	..	..	..	..	..	1	1	1	..	..	..	..	1	..	3	5	..	..	..	..	..	..	..	4	1	..	2	..	..	1	..	..
14.—Meningitis	8	4	2	1	1	..	..	..	3	2	1	..	..	..	1	1	..	..	2	5	1	1	..	1	..	..	..	1	..	..	..	..	1	2	..	..
15.—Organic heart disease	88	109	..	..	..	..	..	..	2	2	4	5	4	9	19	26	59	67	110	131	..	..	..	..	..	..	..	..	1	2	5	9	25	35	79	85
16.—Bronchitis	63	59	7	6	2	1	3	1	1	..	..	..	2	1	16	6	32	44	67	69	8	4	2	1	..	1	..	2	..	..	3	1	8	6	46	54
17.—Pneumonia (all forms)	44	61	10	12	4	5	3	3	1	9	..	2	3	5	12	9	11	16	49	35	2	4	2	2	1	1	1	1	4	..	9	8	13	4	17	15
18.—Other respiratory diseases ..	13	8	..	..	..	1	1	..	3	..	..	..	1	..	..	2	8	5	10	18	..	..	..	..	2	1	..	2	..	..	2	1	5	7	1	7
19.—Diarrhoea, &c.	20	11	10	5	2	..	3	..	..	2	1	1	1	1	2	1	2	1	8	6	2	1	..	..	..	1	..	1	..	1	2	1	3	..	1	1
20.—Appendicitis and typhlitis	1	3	..	..	..	..	..	..	..	..	..	2	..	..	1	..	..	1	5	6	..	..	..	..	..	1	2	2	..	..	1	1	2	1	..	1
21.—Cirrhosis of Liver	7	7	..	..	..	..	..	..	..	..	..	..	1	..	4	2	2	5	5	6	..	..	..	..	..	..	..	..	..	..	2	2	2	2	1	2
21A.—Alcoholism	3	..	..	..	..	..	..	..	..	..	..	..	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
22.—Nephritis and Bright's disease ..	44	25	1	..	1	..	..	..	1	1	..	..	3	2	14	11	24	11	23	23	..	1	..	..	..	1	..	2	1	..	2	3	6	6	14	10
23.—Puerperal fever	..	2	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
24.—Parturition, apart from puerperal fever	..	5	..	..	..	..	..	..	..	..	..	1	..	4	..	..	..	..	..	7	..	..	..	..	..	..	..	..	..	1	..	6	..	..	..	..
25.—Congenital debility, &c.	42	35	42	32	..	1	..	1	..	1	..	..	..	..	..	..	..	..	33	27	28	26	2	1	1	..	..	..	1	..	..	..	..	..	..	..
26.—Violence, apart from suicide ..	30	14	1	..	1	1	5	4	3	2	1	..	11	2	7	1	1	4	42	13	1	..	..	..	3	2	..	..	6	1	10	..	12	2	10	8
27.—Suicide	6	3	..	..	..	..	..	..	..	..	1	1	2	2	2	..	1	..	10	5	..	..	..	..	..	..	..	..	..	..	4	1	4	4	2	..
28.—Other defined diseases	236	231	15	12	4	3	4	3	4	6	4	7	15	18	44	36	146	146	258	282	16	18	4	2	1	1	4	4	5	3	14	20	38	32	176	202
29.—Causes ill-defined or unknown ..	5	5	..	1	..	..	..	..	..	..	..	..	..	..	4	1	1	3	7	10	1	2	..	1	..	1	..	1	..	..	1	1	3	4	2	..

PART I.

THE ADMINISTRATIVE COUNTY.

Population.—The population of the Administrative County in 1901 was 239,783, and in 1911, 246,307.

The Registrar General's estimate of the civil population for 1916 is 226,503. This is used for calculating all death-rates. An estimated population of 246,439, is used for birth-rates only.

Marriages.—The number of marriages in the Registration County for 1916 was 1,641, compared with 2,020 in 1915, which was the highest number during the previous 20 years.

Births.—The total number of births in the Administrative County was 4,682, giving a birth-rate of 18.99, compared with 19.67 in 1915, 20.88 in 1914, 21.1 in 1913, 21.8 in 1912, and 22.6 in 1911. The birth-rate for the year was again the lowest on record.

The urban rate was 19.39 and the rural rate 18.51.

Deaths.—The number of deaths after making corrections for non-residents dying in the County and persons belonging to the County dying outside, was 3,231.

The death-rate was 14.26, compared with 15.19 in 1915, 14.26 in 1914, 12.1 in 1913, 13.1 in 1912 and 13.8 in 1911.

INFANTILE MORTALITY.

As the importance of child welfare has been greatly emphasised by the war, and as the Local Government Board have specially urged increased measures for the prevention of infantile mortality, this question will be dealt with in some detail.

There were 299 deaths of infants under one year of age, equal to a mortality of 64 for every 1,000 births, compared with a rate of 86 for 1915, 88 in 1914, 74 in 1913, 72 in 1912, 91 in 1911, 82 in 1910, 91 in 1909, 100 in 1908, 91 in 1907, 97 in 1906, 93 in 1905, and an average of 106 for the previous five years.

The rate for England and Wales was 91.

It is interesting to note that this is by far the lowest infantile death-rate on record, and whilst one should be very guarded in accepting this as a result of our child welfare work, it seems likely that this work has been one of the causes of the decline. Perhaps the principal factors are however accidental. It is certainly satisfactory to be able to record such a state in the third year of war.

The usual analysis (Table IV. of previous reports) of infant mortalities for the County are not available this year, but it is hoped that this table will be got out later so that there will be no break in the continuity of these records which undoubtedly have proved valuable in the past and are likely to be even more valuable in the future.

CAUSES OF DEATH IN ADMINISTRATIVE AREAS IN THE COUNTY OF SALOP, 1916.

CAUSES OF DEATH.	Bishop's Castle M.B.		Bridgnorth M.B.		Church Stretton U.D.		Dawley U.D.		Ellesmere U.D.		Ludlow M.B.		Market Drayton U.D.		Newport U.D.		Oakengates U.D.		Oswestry M.B.		Wellington U.D.		Wem U.D.		Wenlock M.B.		Whitchurch U.D.		Shrewsbury M.B.	
(Civilians only).	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ALL CAUSES	16	17	32	49	9	11	43	53	15	18	38	42	35	32	24	23	70	71	82	89	52	44	8	17	93	93	44	47	209	193
1.—Enteric fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2.—Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3.—Measles	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
4.—Scarlet fever	..	..	..	..	..	..	..	2	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
5.—Whooping cough	..	..	..	..	..	..	..	..	..	..	..	..	2	5	..	..	..	1	3	..	..	..	..	..	..	..	..	..	3	1
6.—Diphtheria and croup	..	..	1	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	1	1	..	..	..	1	5	..	..	2	8
7.—Influenza	..	2	1	3	..	..	..	2	..	..	..	1	1	..	1	..	4	4	1	1	2	..	1	1	1	3	..	1	3	7
8.—Erysipelas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
9.—Pulmonary tuberculosis	..	2	4	2	..	1	3	2	1	1	1	4	1	1	3	2	..	2	5	10	5	3	..	1	7	8	1	5	17	14
10.—Tuberculous meningitis	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	1	1	..	..	..	..	..	3	1	1	..	..	3
11.—Other tuberculous diseases	..	..	1	1	..	..	1	1	..	..	..	..	1	..	..	1	..	1	2	4	..	..	..	..	1	1	1	2	4	1
12.—Cancer, malignant disease	1	3	5	6	2	2	3	5	1	3	3	4	..	3	2	2	5	7	7	5	7	9	..	2	10	14	1	4	14	20
13.—Rheumatic fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	2	..	..	..	..
14.—Meningitis	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	2	3	..	1	..	..	..	1	1	..	..	3	..
15.—Organic heart disease	2	1	1	5	..	1	5	8	2	6	1	4	3	4	1	1	9	11	14	11	3	5	1	1	14	10	9	7	23	34
16.—Bronchitis	1	2	5	7	1	..	3	6	..	..	..	4	4	1	3	1	8	8	6	5	3	2	1	2	8	3	1	4	19	14
17.—Pneumonia (all forms)	3	..	3	1	..	2	3	3	2	1	..	5	3	3	..	5	7	4	5	9	1	4	..	1	4	6	3	4	10	13
18.—Other respiratory diseases	..	..	..	1	..	..	1	..	..	..	..	1	..	..	2	1	1	2	1	1	1	1	..	1	..	..	2	..	5	..
19.—Diarrhoea, &c. (under 2 years) ..	..	..	1	1	..	..	..	1	..	1	1	1	2	..	..	..	3	..	1	1	1	..	..	..	2	..	..	..	1	..
20.—Appendicitis and typhlitis	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	1	..
21.—Cirrhosis of liver	..	..	1	1	..	..	..	1	1	..	..	..	2	..	..	..	..	..	..	3	..	..	..	..	..	..	1	1	2	1
21A.—Alcoholism	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..
22.—Nephritis and Bright's disease ..	..	..	1	2	..	..	6	2	..	1	6	2	1	1	..	..	2	1	3	7	4	..	2	..	2	2	1	..	16	7
23.—Puerperal fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..
24.—Parturition, apart from puerperal fever	..	..	...	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	2	..	..	..	..	..	1	..	..	..	..
25.—Congenital debility, &c.	2	..	..	2	..	1	1	3	..	..	4	1	2	3	2	..	4	5	4	6	2	1	..	..	2	2	4	4	15	7
26.—Violence, apart from suicide	1	1	..	..	1	..	2	1	..	..	2	..	..	..	3	..	4	1	1	1	3	1	..	..	2	2	1	2	10	5
27.—Suicide	..	..	..	..	..	..	..	..	..	..	1	2	..	..	1	..	..	..	..	..	1	..	..	..	2	..	..	..	1	1
28.—Other defined diseases	6	6	7	15	5	3	14	15	7	4	17	11	13	11	6	9	20	17	23	21	15	18	2	8	32	31	18	13	59	55
29.—Causes ill-defined or unknown ..	..	..	1	1	..	..	..	1	..	..	..	..	..	..	..	1	1	..	2	..	1	..	..	..	..	..	..	..	..	2
Special causes (included above).																														
Cerebro-spinal fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Poliomyelitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Deaths of infants under 1 year of age ..	2	..	3	4	..	..	3	5	1	2	5	3	5	7	4	2	11	8	9	10	5	4	..	..	9	5	6	6	31	19
TOTAL BIRTHS	12	13	32	42	9	14	81	96	12	12	55	43	37	48	39	23	129	124	116	95	88	72	19	24	123	124	77	63	307	279
Legitimate	12	10	30	42	8	14	76	91	10	12	52	41	31	41	37	21	118	116	108	90	85	66	17	24	114	118	66	56	295	262
Illegitimate	..	3	2	..	1	..	5	5	2	..	3	2	6	7	2	2	11	8	8	5	3	6	2	..	9	6	11	7	12	17
POPULATION FOR DEATH-RATE	1232		5054		1253		7074		1751		5270		4349		2844		10871		9662		7028		2032		12910		5561		27756	
POPULATION FOR BIRTH-RATE	1340		5499		1363		7697		1905		5734		4732		3094		11828		10512		7647		2211		14046		6050		30200	

CAUSES OF DEATH IN ADMINISTRATIVE AREAS IN THE COUNTY OF SALOP, 1916.

CAUSES OF DEATH.	Atcham R.D.		Bridgnorth R.D.		Burford R.D.		Chirbury R.D.		Church Stretton R.D.		Cleobury Mortimer R.D.		Clun R.D.		Drayton R.D.		Ellesmere R.D.		Ludlow R.D.		Newport R.D.		Oswestry R.D.		Shifnal R.D.		Teme R.D.		Wellington R.D.		Wem R.D.		Whitchurch R.D.	
(Civilians only).	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ALL CAUSES	134	150	48	62	7	16	22	27	31	36	39	48	51	43	54	46	44	49	50	46	33	38	124	84	54	53	11	11	68	65	43	51	8	16
1.—Enteric fever	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2.—Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
3.—Measles	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
4.—Scarlet fever	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
5.—Whooping cough	4	1	..	..	..	..	..	..	..	1	1	2	..	..	1	..	..	1	..	..	..	..	3	2	..	1	..	..	..	..	..	..	..	..
6.—Diphtheria and croup	2	5	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	2	1	..	3	1	2	6	5	2	3	..	1
7.—Influenza	3	2	..	4	..	..	3	1	1	..	1	1	4	3	2	..	4	..	3	1	3	1	1	..	..	..	..	..	1	..	..	..	..	..
8.—Erysipelas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	5	..	4	1	3	3	4	2	2	..	..
9.—Pulmonary tuberculosis	15	10	3	2	1	..	3	2	3	2	1	3	3	4	1	3	3	1	5	2	1	1	..	1	1	..	..	..	1	2	..	..	..	..
10.—Tuberculous meningitis	1	1	2	..	..	..	..	..	..	..	2	..	..	1	..	1	..	..	..	..	..	..	2	..	..	..	1	..	3	1	..	..	..	..
11.—Other tuberculous diseases	..	1	1	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	10	7	4	8	1	1	5	8	4	6	..	3
12.—Cancer, malignant disease	16	18	6	5	..	1	2	2	2	1	..	4	2	3	6	6	5	6	5	4	1	4	..	..	..	..	..	..	1	1	..	..	..	..
13.—Rheumatic fever	..	..	..	..	..	..	..	1	1	..	..	2	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	2	..	..
14.—Meningitis	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1	1	..	..	..	21	19	9	7	..	1	6	7	6	9	1	4
15.—Organic heart disease	26	24	4	11	..	2	..	5	2	..	6	4	6	8	8	7	9	11	6	8	..	4	8	6	3	4	..	..	9	6	4	5	..	..
16.—Bronchitis	9	8	3	5	1	2	2	3	2	5	2	6	9	2	2	4	6	5	1	5	6	3	8	6	3	4	1	..	4	1	4	1	3	1
17.—Pneumonia (all forms)	6	8	2	3	1	2	2	..	2	..	3	2	1	2	7	3	2	..	2	2	3	4	5	2	1	4	..	..	2	2	1	1	..	..
18.—Other respiratory diseases	2	3	..	3	..	..	2	1	..	1	..	2	..	..	2	..	..	1	1	..	..	3	..	..	..	1	..	..	..	..	..	..	..	..
19.—Diarrhoea, &c. (under 2 years)	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	..	..	..	..	..	..	..	..	..	..	..
20.—Appendicitis and typhlitis	..	2	1	..	..	1	..	..	..	..	1	1	..	1	..	..	..	..	1	..	..	..	..	..	1	..	1	..	..	2	..	1	..	..
21.—Cirrhosis of liver	2	2	..	..	..	..	..	..	..	..	..	..	..	1	2	..	..	1	1	..	..	3	..	..	..	1	..	..	..	..	..	..	..	..
21A.—Alcoholism	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	1	..
22.—Nephritis and Bright's disease	2	4	5	3	..	..	..	2	1	1	..	..	..	..	..	1	..	2	2	3	2	4	5	3	4	..	..	..	..	..	..	..	..	..
23.—Puerperal fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
24.—Parturition, apart from puerperal fever	..	2	..	1	..	..	..	..	..	..	..	2	..	1	..	..	..	..	..	..	..	..	6	3	2	..	1	..	2	1	..	1	..	3
25.—Congenital debility, &c.	4	4	3	1	..	..	1	1	1	..	1	4	1	..	1	1	4	3	4	2	1	3	5	3	2	1	..	..	5	1	3	1	1	..
26.—Violence, apart from suicide	9	1	..	1	1	..	2	..	..	2	5	..	1	2	1	1	3	..	3	..	1	..	1	..	2	..	..	..	..	1	..	..	..	..
27.—Suicide	..	1	1	..	..	..	..	..	2	..	3	1	..	1	..	..	..	1	1	..	..	..	1	..	2	..	..	..	19	23	17	18	2	3
28.—Other defined diseases	33	51	16	23	3	6	4	8	11	21	12	12	21	14	21	16	7	16	15	17	13	9	42	28	24	19	4	3	..	..	..	..	..	1
29.—Causes ill-defined or unknown	..	1	..	..	..	2	..	..	2	1	..	..	1	..	2	1	..	..	..	1	1	1	..	1	1	..	..	1	..	..	..	..	..	..
Special Causes (included above)																																		
Cerebro-spinal fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Poliomyelitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Deaths of infants under 1 year of age	7	10	5	2	..	3	2	2	1	2	1	8	5	1	5	2	5	5	4	6	3	6	14	6	4	2	1	..	8	4	1	2	—	3
TOTAL BIRTHS	183	211	85	87	9	13	28	34	48	49	71	105	63	62	70	50	70	79	71	89	53	47	174	135	73	71	15	13	104	121	78	79	18	16
Legitimate	176	198	82	81	8	13	27	32	46	48	70	103	54	56	66	46	63	76	68	84	49	64	166	127	70	65	12	12	96	115	71	74	18	14
Illegitimate	7	13	3	6	1	..	1	2	2	1	1	2	9	6	4	4	7	3	3	5	4	1	8	8	3	6	3	1	8	6	7	5	..	2
POPULATION FOR DEATH-RATE	19330		8393		1129		2928		4405		6751		6070		6848		7693		8887		5317		14358		7765		1509		10533		8020		1920	
POPULATION FOR BIRTH-RATE	21031		9132		1228		3186		4793		7345		6604		7451		8370		9669		5785		15622		8448		1642		11460		726		2089	

The principal decreases are shown on Table 2.

It will be observed that there was a decrease in mortality from each disease or class of diseases but perhaps the most striking features were the decrease in the rural districts in the deaths from pneumonia from 23 to 6 and from diarrhoea from 22 to 3.

No doubt the principal cause of the lower rate in 1916 was the smaller amount of measles, whooping cough and diarrhoea with a corresponding lowering of the rate from bronchitis and pneumonia.

Except for the small district of Burford, the districts with the highest mortalities were the urban districts of Market Drayton, Ellesmere, Newport and Bridgnorth.

The following table dealing with considerable periods gives a much better idea of the infant mortality of the different districts and the progress that is being made.

TABLE I.

AVERAGE OF THE ANNUAL INFANTILE MORTALITY FOR THE PERIODS 1901—1906 AND 1907—1914, AND FOR THE YEARS 1915 AND 1916.

URBAN DISTRICTS.	1901 to 1906	1907 to 1914	Percentage increase or decrease in second period.	1907—1914 Percentage above or below the average for Urban Districts.	Rates for 1915.	Rates for 1916.
Bishop's Castle	86	100	+ **16.3**	+ **4.2**	235	80
Bridgnorth ..	106	116	+ **9.4**	+ **20.8**	138	95
Church Stretton	96	99	+ **3.1**	+ **3.1**	150	0
Dawley ..	112	97	— 13.4	+ **1.0**	122	45
Ellesmere ..	103	65	— 36.8	— 32.3	32	125
Ludlow ..	113	84	— 25.7	— 12.5	93	82
Market Drayton	..	..	..	..	80	141
Newport ..	117	80	— 31.6	— 16.7	101	96
Oakengates ..	138	104	— 24.6	+ **8.3**	91	75
Oswestry ..	102	101	— 1.0	+ **5.2**	91	90
Shrewsbury ..	126	102	— 19.0	+ **6.2**	71	85
Wellington ..	114	78	— 31.6	— 18.7	156	56
Wem	93	87	— 6.4	— 9.4	71	0
Wenlock ..	102	85	— 16.7	— 11.5	86	57
Whitchurch ..	103	104	+ **1.0**	+ **8.3**	102	86
All Districts ..	112	96	— 14.3	..	95	76

RURAL DISTRICTS.	1901 to 1906	1907 to 1914	Percentage increase or decrease in second period.	1907—1914 Percentage above or below the average for Rural Districts.	Rates for 1915.	Rates for 1916.
Atcham ..	84	77	— 8.3	— 1.3	76	43
Bridgnorth ..	87	67	— 23.0	— 14.1	79	40
Burford ..	59	68	+ **15.2**	— 12.8	0	136
Chirbury ..	77	60	— 22.1	— 23.1	53	64
Church Stretton	97	80	— 17.5	+ **2.6**	24	31
Cleobury Mortimer ..	92	74	— 19.6	— 5.1	102	51
Clun	100	72	— 28.0	— 7.7	106	48
Drayton ..	115	84	— 26.0	+ **7.7**	41	58
Ellesmere ..	92	84	— 8.7	+ **7.7**	46	67
Ludlow ..	91	69	— 24.2	— 11.5	42	62
Newport ..	106	96	— 9.4	+ **23.1**	105	90
Oswestry ..	96	87	— 9.4	+ **11.5**	97	64
Shifnal	94	76	— 19.1	— 2.6	67	41
Teme	127	102	— 19.7	+ **30.8**	42	35
Wellington ..	102	83	— 18.6	+ **6.4**	119	53
Wem	69	67	— 3.0	— 14.1	105	19
Whitchurch ..	61	58	— 5.0	— 25.6	86	88
All Districts ..	93	78	— 16.1	..	79	52

On pages 12, 13 and 14 of the report for 1915 were given figures and deductions showing that so far better conditions, whether better social conditions, or the healthier conditions of rural districts, or the healthier conditions of present times produced by sanitary reforms, have produced no effect upon the mortality of the infant during the first week after birth, very little effect during the first month, but after this period a marked and increasing effect up to 9 to 12 months.

The greatest effect during the first month will probably be produced by eradication of venereal infection.

The Registrar General's report for 1911 gives infant mortalities in families of army officers as 44, naval officers and solicitors 41, medical practitioners 39, artists 27. These figures are valuable as giving some indication of the reduction of mortality in the general population that may be eventually attained. Even amongst these selected classes, there are of course deaths that can be prevented, and it probably may be taken as a good working guide that conditions should not be regarded as satisfactory until the mortality has been reduced to the neighbourhood of 30—40.

TABLE 2.

Comparisons of Infantile Deaths for Periods of Years.

	Average Annual numbers for years. 1905—1909.	Average Annual numbers for years. 1910—1914.	Percentage decrease of numbers in second period compared with first period.	Numbers for year 1915.	Numbers for year 1916.
Births	5955	5427	8.8	4917	4682
Deaths from all causes under one year	561	444	20.8	426	299
Deaths from—					
Measles and Whooping Cough	34	22	35.3	33	18
Other infectious diseases ..	5	1	80.0	0	0
Tuberculous diseases	19	12	36.8	9	4
Convulsions and Meningitis (not tuberculous)	60	42	30.0	39	*
Bronchitis	46	33	28.2	49	25
Pneumonia	65	43	33.8	45	28
Diarrhoea, Enteritis and Gastritis	61	52	14.7	50	18
Premature birth, congenital defects and malformations ..	128	119	7.0	105	*
Atrophy, Debility and Marasmus	96	74	22.9	51	*

* These figures are not available this year.

CASES OF INFECTIOUS DISEASE NOTIFIED IN 1916 (CIVILIANS ONLY).

	Small-pox.	Scarlet Fever.	Diphtheria (including Membraneous Croup).	Enteric (Typhoid) Fever.	Puerperal Fever.	Typhus.	Cholera.	Relapsing Fever	Continued Fever.	Erysipelas.	Tuberculosis.		Cerebro-Spinal Fever.	Acute Poliomyelitis.	Ophthalmia Neonatorum.	Measles.
											Pulmonary.	Other.				
RURAL DISTRICTS.																
Atcham		47	49	1	1	..	..	..	..	9	26	2	..	1	5	16
Bridgnorth		3	1	1	1	..	..	..	..	3	12	1	..	..	1	30
Burford		2	6	..	1	..	..	..	..	..	..	..	..	..	..	3
Chirbury		3	1	..	..	..	..	..	..	..	2	..	..	..	..	7
Church Stretton		1	6	..	..	..	..	..	..	1	4	1	..	..	1	14
Cleobury Mortimer		13	2	1	..	..	..	..	..	2	10	1	..	..	3	111
Clun		..	24	1	..	..	..	..	..	1	9	1	..	..	..	16
Drayton		22	..	..	..	..	..	..	..	1	11	2	1	..	..	16
Ellesmere		11	4	..	..	..	..	..	..	..	4	..	..	..	..	22
Ludlow		9	..	..	1	..	..	..	..	2	14	4	..	1	3	38
Newport		8	4	..	..	..	..	..	..	2	7	1	1	..	..	20
Oswestry		30	20	..	1	..	..	..	..	9	14	..	..	..	3	52
Shifnal		11	7	..	..	..	..	..	..	1	9	8	..	..	2	68
Teme		..	..	..	..	..	..	..	..	1	6	..	..	..	..	2
Wellington		5	2	1	..	..	..	..	..	5	11	10	..	1	3	94
Wem		15	2	..	1	..	..	..	..	..	4	..	2	..	2	58
Whitchurch		3	2	..	..	..	..	..	..	2	2	..	..	..	..	16
URBAN DISTRICTS.																
Bishop's Castle		11	..	..	..	..	..	..	..	..	1	..	..	..	..	1
Bridgnorth		3	1	..	..	..	..	..	..	..	10	5	..	..	..	24
Church Stretton		..	1	..	..	..	..	..	..	..	2	..	..	..	..	8
Dawley		8	1	..	1	..	..	..	..	2	9	..	..	1	2	15
Ellesmere		3	..	..	..	..	..	..	..	..	1	1	..	..	1	9
Ludlow		24	3	1	..	..	..	..	..	4	29	..	..	..	3	17
Market Drayton		11	1	..	..	..	..	..	..	1	6	..	..	..	2	2
Newport		4	1	..	..	..	..	..	..	1	7	2	..	..	1	8
Oakengates		16	12	..	1	..	..	..	..	5	12	2	..	..	6	26
Oswestry		25	26	..	..	..	..	..	..	5	20	1	..	1	2	215
Shrewsbury		82	96	1	..	..	..	..	..	5	61	13	1	1	5	52
Wellington		4	8	..	..	..	..	..	..	2	15	1	..	..	2	39
Wem		6	..	..	..	..	..	..	..	..	1	..	..	..	..	89
Wenlock		..	37	..	..	..	..	..	..	5	37	16	..	3	..	9
Whitchurch		7	3	..	..	..	..	..	..	2	8	2	..	..	2	124
Total		387	320	7	8	..	..	..	..	71	364	74	5	9	49	1221

INFECTIOUS DISEASE.

Small-pox.—No case of small-pox has been notified amongst the civil population. One case and one suspected case were removed to Prees Heath Hospital from the neighbouring camps. The war is undoubtedly increasing the risks of introduction of infection, and the falling off of vaccination during the last 6 or 7 years greatly increases the danger from such introduction. It is important therefore that all Sanitary Authorities should have some hospital accommodation kept in readiness.

Scarlet Fever.—The number of cases notified was 387, being considerably less than that of any year during the last 17 years.

Measles.—There were only 2 deaths from measles, compared with 48, 33, 16, 21, 23, 30, 8, 42 and 57 for the immediately preceding years.

Measles became notifiable in January, 1916, and 1,221 cases were notified.

The nursing and health visiting of measles was the subject of a special report and nurses are being provided. It is recognised that the greatest good can at present be accomplished by reducing the case mortality rather than by efforts principally for limiting infection.

Diphtheria.—The outbreaks reported on were mostly associated with school attendance. As a routine measure it is desirable that all persons in an infected home should be examined bacteriologically and this is especially necessary with regard to school children. The examination of the infected child in order to declare it free from infection before going to school should certainly be extended to the other school children in the same house. In order to carry out this routine, and in order to get swabs taken from all sore throats in a school where diphtheria has broken out amongst the children, it is necessary that there should be nurses always available. The district nurses in some districts seem able to do this work fairly satisfactory as part of their school work. In other districts they have been of little use. With the addition of a number of whole time nurses in accordance with the original pre-war scheme there should be no difficulty in getting these suggestions carried out. C. C.

Enteric Fever.—Only seven cases with one death occurred during the year. In addition there were four military cases in connection with the camps or hospitals.

The increase of enteric fever that was predicted on account of the war has not taken place, although a few cases have been traced to military infection. This fortunate result must be attributed to the care that is taken to ascertain that soldiers who have suffered from enteric fever are free from infection before discharge.

The seven cases occurred as single cases in the following districts :—Atcham, Bridgnorth, Cleobury Mortimer, Wellington, and Clun Rural Districts and Ludlow and Shrewsbury Urban Districts. The origin appears to have been doubtful in all the cases, as none of them are definitely attributed to any source. The desirability of careful and thorough investigation and the lines of investigation are mentioned on page 18 of last year's report.

The time now seems to have arrived for the adoption of systematic bacteriological examination of all cases of typhoid fever on recovery, so that one may know which cases are still carriers and so that these persons can be advised as to the precautions they should take. The cases are so few in number that this procedure would not be any very great expense. If at all universally adopted it would enable us to prevent or discover at an early stage the cause of many outbreaks. C. C.

Cerebro-spinal Meningitis.—Five cases were notified, 2 in the rural district of Wem, and one in Drayton Rural District, one in Newport Rural District and one in the Borough of Shrewsbury.

In order to prevent infection it is desirable that patients should be removed to an isolation hospital and that contacts should be dealt with by partial quarantine and by treatment of the throat and nose. S. A.

It is important that lumbar puncture and treatment by the injection of serum should be available for every patient. As most practitioners have had no experience of this treatment, it is very desirable that sanitary authorities should make provision by which a patient may get serum treatment without delay. The expense would be small, so long as the cases are few, and would be very trivial compared with the lives saved and the paralysis prevented. If the cases were considerable in number, the necessity for such provision would be obvious.

Poliomyelitis.—Nine cases were notified, but with the exception of the Borough of Wenlock these were all in separate districts. There is reason to suppose that this does not nearly represent the total cases.

The seriousness of this disease lies in the fact that it very frequently leaves crippling paralysis especially if it is not properly treated, and that it is liable to become epidemic.

We do not know its mode of spread, nor has it so far occurred in this County except in isolated cases. The question of treatment is a matter of some urgency. With skilled treatment the bad effects of the disease can be very greatly lessened. The treatment required is entirely beyond the means of the mass of the population. It must be either institutional treatment, or treatment by a medical practitioner specially experienced acting through a nurse specially trained. The provision of such treatment, it appears to me, comes within the powers of the County Council under its Child Welfare Scheme. At present the majority of the children attacked are allowed to develop serious deformities and paralysis, which last throughout life, or at most an attempt is made later in life to relieve the deformities which might have been prevented. The Baschurch Surgical Home is doing specially good work in these cases.

I would suggest that the District Medical Officers of Health be invited to notify the cases to me, under the arrangement that we already have for ophthalmia neonatorum and puerperal fever in order that I may see that they are dealt with under the Child Welfare Scheme.

Accidents and Diseases of Parturition.—There were 12 deaths compared with 10, 16, 14, 14, 17, 12, 14, 23, 15, 14, in the ten preceding years.

DYSENTERY.

Outbreaks of bacillary dysentery of the Flexner type and of dysenteric diarrhoea in which no dysenteric organisms were found took place in various parts of the County during the year. The particulars of the outbreaks are contained in the extracts from the District Medical Officers' reports given below. The outbreaks in the south-west of the County were investigated by Dr. Gepp and myself and by Dr. Wilkinson a medical inspector of the Local Government Board.

In no single instance could the outbreak be definitely attributed to infection from returned soldiers, and in most of the outbreaks this source of infection appeared to be very improbable. The spread of the disease throughout members of a household and the spread through the children's ward of the Salop Infirmary showed the extreme infectiousness of the condition to persons inhabiting the same house.

The districts affected were :—

	Bacteriological Examination.	*Month of Outbreak.*	*Extent of Outbreak.*
Bishop's Castle	Flexner bacilli ..	Feb., March & April	Numerous cases. 23 investigated.
Church Stretton	Flexner bacilli ..	April	2 cases.
Clun	Flexner bacilli ..	Feb., March & April	Numerous cases. 35 known.
Ludlow Rural (Woofferton)	Not examined ..	December	12 cases.
Shifnal (Norton)	do. ..	December	32 cases.
Broseley	No Flexner bacilli .	February	Numerous cases.
Madeley	No ,, ,, ..	May & June ..	do.

These outbreaks present many problems of which we have no absolute solution, but which it is very important that we should, so far as the facts allow, arrive at some probable conclusion, *e.g.* (1) the original source of infection, (2) method of spread, (3) precautionary measures.

No similar outbreaks appear to have been recorded in the past with the exception of a small outbreak of dysentery in Ludlow which was in all probability spread through water, but before one can definitely assume that they have not occurred, a more careful inquiry from the practitioners of the County would have to be made. The probabilities are that there have been un-recorded outbreaks.

In order that future cases might be properly investigated and reported I addressed a circular letter on May 2nd to all practitioners in the County calling attention to the outbreaks of dysentery and asking them to submit samples of blood for examination in any suspicious cases. As a result of this circular several diarrhoeal outbreaks became known.

The only sources of infection that suggest themselves are returned soldiers, patients discharged from the County Asylum, or prolonged infection in carriers from previous outbreaks. It is a fact that a large number of Asylums including Bicton Asylum are rarely free from dysentery. There was no evidence that any of the outbreaks were due either to soldiers or patients discharged from the Asylum. A recrudescence of the disease in the spring of 1917 in Clun town and district pointed to prolonged personal infection, and suggested a possible explanation of widespread outbreaks under favourable conditions. The spread of infection to members of the same household was usually rapid and the most likely method of spread appeared to be by contamination of food or food utensils. The infection was probably carried also from house to house by means of food handled by infected persons, although there was no definite proof of this. The most likely method of spread is by means of the food brought to school to be eaten at the mid-day meal and by food eaten on visits to infected houses or to public eating houses, etc. The possibility of infection by milk and water were not lost sight of but the distribution of cases did not favour this supposition. The time of the year excluded flies as a considerable means of spreading infection. Investigation of individual cases threw little light upon the question of spread from house to house.

There was a considerable outbreak of diarrhoea with dysenteric symptoms in Clun and neighbourhood in the spring of 1917. Most of the cases were very mild and attracted little attention. Five specimens of blood were submitted for examination with the result that two were found positive and three negative. A large number of school children were affected, particularly amongst the lower classes of the school. From the facts elicited there could be little doubt that the infection had been kept alive by carriers, and it was also probable that it had been spread by school infection. I addressed a letter to the school-master on May 29th, 1917, containing the following instructions, to prevent the spread of dysentery in school.

The prevention of the spread is a matter of personal cleanliness. It would be well to insist that every child should wash his hands after each motion of the bowels whilst at school; also that every child who stays for his mid-day meal should wash his hands before commencing the meal.

"The only other matter of importance is to see that the school cleaner keeps the closet seats clean. They should be cleaned each night. Of course the pails should be emptied sufficiently often to prevent them getting over full."

Another point of importance not mentioned in the letter is that there should be no interchange of food.

It is probably desirable as a first step that diarrhoea with dysenteric symptoms should be notifiable. It would then be possible to investigate the cases bacteriologically and take such precautionary measures as are possible. Light might also be thrown on the other causes of diarrhoea.

Recent investigation into cases of dysentery at the County Asylum shows that they are of the Flexner type. It is important that these cases should not be discharged whilst infectious. The army cases are not supposed to be discharged until they have been found free from infection on two or three separate occasions. To have carried out similar precautions with respect to all the cases of dysenteric diarrhoea that came under observation was not practicable.

The outbreaks showed the necessity for some isolation accommodation for dealing with severe cases living under insanitary conditions. The disease undoubtedly spreads more rapidly and assumes a more serious form in crowded, dirty and insanitary houses. Only two cases were removed to hospital. These were two very severe cases in Bishop's Castle who were taken to the isolation hospital belonging to the Clun Guardians. The removal to hospital probably saved the children's lives.

Outbreaks in other parts of the County were characterised by typical dysenteric symptoms, but in those that were examined bacteriologically no evidence of dysenteric infection was found.

Extract from the reports of the District Medical Officers.

Bishop's Castle.—"I presented a special report, dated April 3rd, on an outbreak of Bacillary Dysentery in the Borough. A fatal case of diarrhoea having occurred in a child on March 18th, and others of the family being severely affected, I visited at the medical attendant's request on March 22nd. Two more deaths had then occurred in the same family, after a few hours' illness. I forwarded a specimen of the excreta obtained during my visit, to Professor Leith of Birmingham University for examination. After full and careful research Prof. Leith demonstrated a dysentery bacillus of Flexner type. Careful investigation was made into similar cases of diarrhoea which had occurred, by the County Medical Officer and myself, and later by an Inspector of the Local Government Board. Cases of dysentery I found to have existed in the Borough since the end of February, but the means of introduction of the infection and the method of its spread were not elucidated. The evidence showed however that the infection was widespread, sporadic cases being discovered in a considerable number of houses at distances of some miles from the town and from each other. As regards the Borough, 23 cases were investigated in 8 families arising over a period of six weeks, and in most of these the blood of one or more affected members of the family gave a positive reaction when tested against the Flexner bacillus.

COUNTY OF SALOP.

Report of Inspector of Midwives to County Medical Officer of Health.

Subject.

Analysis of Cause of sending for Medical Help for the Year 1916.

Pregnancy		**Labour**	
Abortion	31	° Placenta praevia	2
Threatened abortion	7	° Abnormal presentation	32
Puffiness of face & hands	3	° Retained placenta & membrane	29
Fits	1	° Delayed or difficult labour	102
Unsatisfactory condition	2	Rigidity	5
Pain & haemorrhage	2	° Contracted pelvis	24
Excessive vomiting	2	Uterine inertia	3
	48	Unsatisfactory labour	5
		° Rupture of perineum	56
		PTS. WISH or sent for by friends	28
Lying-in.		Haemorrhage ante	7
White leg	1	" post-	11
Swelling & abscess of breasts	2	Premature birth	2
Puffiness of hands, face & legs	3	Uterine prolapse	2
Rise of T & quickening of pulse	17		308
Sickness & after pains	3	**Child**	
Rigor	1	Jaundice	2
Mastitis	2	Bowels not opened	1
Sleeplessness	1	Not sufficient urine	1
Faintness	1	Colds	3
Influenza & colds	2	Discharge from Eyes	20
Unsatisfactory condition	10	Deformities	11
	43	Laboured breathing	5
		Cyanosis	4
		Unsatisfactory Condition	7
		Feebleness	18
		Premature & feebleness	18
		Convulsions	1
			91

Signed .....

Date 191

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"The fatal cases were in three of a large family of young children, of whom six took the disease and the infection developed intense virulence. The fatal cases were aged 5 years, 4 years, and 2½ years. Disinfectants and instructions for use were freely distributed and other general precautions taken. No further cases were reported during the year."

Church Stretton Urban.—"Investigation was made in April in connection with a case of diarrhoea which had been admitted from the District into the Children's Ward of the Royal Salop Infirmary and which appeared to be the cause of an outbreak of dysentery in that ward resulting in four deaths. This first case arose in Church Stretton and was eventually diagnosed on bacteriological evidence as bacillary dysentery of Flexner type. The source of infection in this case was not traced, but scattered cases of the same disease had been found in the Clun and Bishop's Castle area of the County a little earlier in the year. Investigation in Church Stretton discovered one other case of diarrhoea, in a child in a neighbouring house, and this case was determined also to be Flexner dysentery. Both these children recovered, and no further outbreak came to light during the year."

Clun.—"A widespread but scattered outbreak of Bacillary Dysentery of Flexner type occurred in the spring. Severe and fatal diarrhoea having come to my notice at the beginning of March in Bishop's Castle Borough, and having been proved to be Flexner Dysentery, I enquired of Dr. Mathewson, the medical practitioner at Clun, if he had had similar cases. He very kindly gave me full information, which may be summarised thus:—Twenty-seven cases had occurred in 9 houses in his practice, between February 17th and March 7th, distributed as follows, taking Clun as centre:—Four cases in 3 houses in Clun itself; 10 cases in 2 houses at Clun Green, one mile east of Clun; 1 case at Bicton, one-and-a-half miles north-west; 1 at Bryn, three miles north (and the same distance south of Bishop's Castle); 4 in 1 house at Newcastle, three miles west; 7 in 1 house at Treverward, two miles south-west. Of Dr. Mathewson's patients 14 were adults and 13 were children. Blood sent from three or more patients in different areas gave a positive Flexner reaction. One later case occurred in June at Bwlch, four miles south-west of Clun. This was also positive.

"Besides these cases, I discovered, when investigating the Bishop's Castle outbreak, eight cases in three houses, which appeared to be more directly related to that outbreak than to that in the Clun area, although in my opinion all the cases must be taken together and regarded as only the known cases indicating a widespread and co-existing infection over a very extensive area. These eight cases were:—Five in one house, at the end of February, at Oakley Mynd, Lydbury North parish, 2 miles east of Bishop's Castle; two in one house early in March, at Plowden, 4 miles east of Bishop's Castle, and one in Shelve parish in April, some six miles north of Bishop's Castle and therefore from some 9 to some 15 miles distant from the cases in Clun area. The Shelve and Oakley Mynd cases were verified by blood test.

"The characteristic symptoms were profuse diarrhoea with fever, great pain, straining and tenesmus, the passage of blood and mucus, and generally great prostration and loss of flesh. The acute symptoms lasted for about a week as a rule. No death resulted in the Rural District but many of the patients were seriously ill. The origin and method of spread of infection were not traced. The outbreak was investigated also by a Medical Inspector of the Local Government Board."

Ludlow Rural.—"About a dozen cases of Dysentery were reported at Woofferton in December, they were largely in children and were probably associated with the previous epidemics which had occurred in the County throughout the year. The duration of the illness was usually about 10 days and there were no deaths. The mode of spread was probably by personal contact and not by food or water."

Shifnal.—" There were two slight outbreaks of Dysentery in the winter, about twenty cases occurred at Norton in December. The majority were in a group of houses in Cheswardine Lane with a few scattered cases in the village. They appeared to be spread by direct contact in the neighbouring cottages and in a few instances by school attendance. The disease attacked persons of all ages and often spread through the household. Later it spread to the next village Sutton Maddock, where a dozen cases were investigated. In one or two the disease was of a severe type lasting some weeks, but the majority recovered in a few days. A similar epidemic had invaded the neighbouring district of Madeley, a few weeks previously and I am inclined to the opinion that this was the origin of the outbreak, although soldiers convalescent from Dysentery were known to have been on furlough in the village just before. No deaths occurred."

Wenlock.—" A considerable amount of investigation and research work was done in May and June with respect to outbreaks of infective diarrhoea which had come to notice, especially as regards a part of Broseley in February, and Madeley in May. The symptoms reported resembled those of cases in outbreaks which had occurred in the South Western area of Shropshire and which had been proved to be bacillary dysentery of Flexner type.

" It is only necessary to record here that the examination of samples of faeces from four recent cases in Madeley and of blood taken from patients in Broseley and Madeley failed to show relation to bacillary dysentery, and the actual nature of the infecting organism remained obscure.

" The symptoms were of acute and profuse diarrhoea, with passage of blood and mucus, pain and straining, and in some cases considerable temporary prostration. The outbreaks were also investigated by the County Medical Officer and by a medical Inspector of the Local Government Board. The Sanitary Inspector gave great assistance in making local enquiry and discovering cases, and furnishing clear and useful notes. The bacteriological work was carried out at Birmingham University at the cost of the County Council and the Local Government Board."

TUBERCULOSIS.

TABLE 3.

	Death-rates from Phthisis.											Death-rates from other forms of Tuberculosis.										
	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	19
Districts .	1.20	1.15	1.09	1.04	.93	1.12	1.01	.72	.95	1.08	1.01	.47	.27	.45	.41	.29	.31	.25	.22	.25	.27	
Districts .	.91	.83	.83	.83	.77	.68	.71	.47	.70	.78	.82	.27	.31	.41	.38	.15	.17	.26	.21	.20	.27	
County .	1.04	.97	.95	.93	.85	.87	.84	.58	.81	.92	.91	.36	.29	.43	.39	.21	.34	.25	.21	.23	.27	
d & Wales	1.15	1.14	1.11	1.08	1.01	1.08	1.03	1.00	1.04	1.16	*	.49	.46	.47	.44	.41	.38	.32	.32	.32	.35	

* These rates are not yet available.

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PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1912.

Summary of Notifications during the period from 1st January, 1915 to the ~~1st January, 1917~~ 31st Dec 1916.

Age Periods.	Number of Notifications on Form A.													Number of Notifications on Form B.					Number of Notifications on Form C.	
	Primary Notifications.												Total Notifications (*i.e.*, including cases previously notified by other doctors).	Primary Notifications.				Total Notifications (*i.e.*, including cases previously notified by other doctors).	Poor Law Institutions.	Sanatoria.
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upwards.	Total. Primary Notifications.		Under 5	5 to 10	10 to 15	Total.			
Pulmonary, Males	1	3	8	8	17	38	45	31	19	14	3	187	193	..	..	1	..	1	..	66
„ Females	1	4	10	14	18	45	50	31	11	7	1	192	192	..	..	1	..	1	..	58
Non-pulmonary, Males ..	3	5	9	3	4	4	1	2	..	1	..	32	32	..	..	..	..	..	..	..
„ Females ..	..	5	6	9	5	6	1	..	..	..	..	32	32	..	..	..	..	..	..	..
Totals ..	5	17	33	34	44	93	97	64	30	22	4	443	449	..	..	2	..	2	..	..

Phthisis.—The death-rate from pulmonary tuberculosis was very slightly lower than last year. In commenting upon the very low rate for 1913, I said :—" One must recognise that the decrease is principally due to some factor unconnected with the administrative measures taken for its prevention, as the preventive measures except those which tend to the general betterment of the population cannot yet have taken effect. If the curative measures have had any considerable effect in prolonging life and thus lessening the number dying this year, *one would expect a corresponding increase of deaths in the one or two succeeding years.* This cause has probably however not operated to any considerable extent."

The increase of deaths in 1914 and 1915 has taken place, and for 1916 the rate has remained practically at the higher level.

The number of primary notifications of pulmonary tuberculosis (phthisis) was 379 on Form A and 2 on Form B, or a Total of 381, compared with a total of 354 in 1915.

The number of cases notified was 381 and the number of deaths was 206. It appears as if the large majority of the cases are now notified but many are notified so late in the disease, that little can be done either for the patient or for limitation of infection. This is a very serious matter and strikes at the very root of the prevention of consumption.

In the year 1915 I addressed the following letter to every medical practitioner in the County :

" Dear Sir,

EARLY NOTIFICATION OF CASES OF TUBERCULOSIS.

" The early recognition and notification of the cases is the basis of all direct measures for the prevention of tuberculosis.

" In order to help to bring about early diagnosis the County Council have provided facilities for the examination of sputum and opportunities for consultation with the Tuberculosis Officer in doubtful cases.

" *It is a matter for regret that a considerable proportion of the cases are still not notified until all possibility of cure has disappeared and until the cases have for a prolonged period been a danger to the household.*

" The difficulty of diagnosing cases of phthisis in the early stages and the difficult relation of the medical attendant to the patient in these cases, is fully realised. It will probably be agreed however, that in the majority of cases a frank and early statement with regard to the case either to the patient or his guardians is essential both for the welfare of the patient and the protection of the household.

" In any case of suspicion I would urge that *early and frequent* examination of the sputum should be made. I would also point out that the services of the Tuberculosis Officer are available for consultation in doubtful cases and that medical practitioners are invited to notify this department, whenever such consultations are desired.

" The fear of interference by the Sanitary Authorities need not act as a deterrent to notification, as in any such exceptional case the Medical Officer of Health will leave the case to the practitioner if he gives an undertaking that he will see that every precaution is taken. In the same way, the officials of the County Council only act after consulting the medical attendant.

Yours sincerely,

JAMES WHEATLEY,

County Medical Officer of Health.

This matter is under the control of the Local Sanitary Authorities on whom the duty rests of seeing that notification is properly carried out. The only remedy is for the Medical Officer of Health to make careful inquiries into all cases where undue delay appears to have taken place and to ask for an explanation where necessary. It is as much the duty of the medical attendant to notify promptly a case of phthisis as it is to notify a case of scarlet fever or diphtheria. The disease, however, being a chronic one, there is a tendency to put off arriving at a definite diagnosis and to put off notification until a late period.

The position with regard to the scheme for the prevention and treatment of tuberculosis is as follows : --

(1) One tuberculosis medical officer has been appointed and has been working in the County since June 9th, 1913.

(2) There are 56 sanatorium beds at the King Edward Memorial Sanatorium available for patients of the County.

(3) A central dispensary has been established in Shrewsbury, and a branch dispensary at Oswestry.

(4) An arrangement has been made with the Baschurch Surgical Home for the treatment of surgical cases of tuberculosis.

(5) Acute cases and observation cases have frequently been treated at the Royal Salop Infirmary with very beneficial results, and the facilities given by this institution have been of the greatest use.

(6) Six whole-time health visitors have been appointed for tuberculosis and child welfare work. An arrangement is in force in the Borough of Shrewsbury by which a nurse is employed for half her time in tuberculosis work under the County Council.

(7) A scheme for after-care provided by the Association for the Prevention of Consumption is in operation. A Central Committee has been formed and branch committees covering the whole County. The scheme is working very successfully (see page 20).

For the completion of the scheme there should be at least one more tuberculosis officer, several branch dispensaries and beds for advanced cases. This provision has been postponed until after the war.

The beds for advanced cases are to be provided in connection with the proposed isolation hospitals. In the meantime, it is possible that some temporary provision may be made. The Government are making provision for the institutional treatment of discharged soldiers who are suffering from phthisis and are not suitable for sanatorium treatment.

Other important matters for future consideration are the provision of Farm Colonies and the provision of houses for phthisical families in Municipal Housing Schemes.

Work under the Scheme.—All notified cases are visited by the Tuberculosis Medical Officer unless there is some objection on the part of the patient or the medical attendant. In addition all cases discharged from the Sanatorium are visited at an early date, and also school children suspected of consumption.

Perhaps one of the most important parts of the work of the Tuberculosis Officer is the examination of contacts and suspects. These are either discovered by himself, or referred to him by the Medical Inspectors of school children, or by the Health Visitors, or by medical practitioners or care committees or other persons. They are examined either at their homes or at one of the dispensaries. This work of the Tuberculosis Officer is a great help to the medical inspection of school children.

The Tuberculosis Medical Officer makes a recommendation with respect to insured persons as to the kind of treatment—domiciliary, dispensary, or sanatorium. Non-insured patients are dealt with in a similar manner, with regard to sanatorium and dispensary treatment.

In all cases where application is made for sanatorium benefit or for admission to the Sanatorium the Tuberculosis Medical Officer examines the patient. In other cases, he examines the patient with the permission or on the request of the medical attendant. Instructions are given in all matters concerning the prevention of infection and the health of the patient.

Reports are received from the medical attendant once a quarter with regard to insured patients having domiciliary treatment. These reports act as a guide to the Tuberculosis Officer and he has to consult with the medical attendant with regard to each case at least once a year. The consultations with the Tuberculosis Officer are on the whole much appreciated.

The following is the number of visits paid by the Tuberculosis Medical Officer in 1916 :—

Visits to insured persons	612
Visits to non-insured persons	342
Visits to school children	228
	1,182

The cases are followed up by the whole time health visitors, who enter into the details of household arrangements, with the object of improving the living conditions of the patients, and preventing infection. At their first visit they make a full report for the use both of the County Public Health Department and the Local Sanitary Authority. Much of the success of the scheme depends upon the care and fulness with which the health visitor makes her inquiries and reports and the frequency of her subsequent visits. It is her duty to see that nothing is left undone to bring about satisfactory conditions.

The number of visits paid by the health visitors to phthisis houses during the year was 3,340.

King Edward Sanatorium (Shirlett).—The number of patients admitted to the Sanatorium in 1916 was 158, and consisted of :—

Insured patients—Males	75
,, ,, Females	27
Non-insured patients—Males	16
,, ,, Females	40

The annual report for 1916 gives statistics with regard to the condition of patients on admission and on discharge, alteration in weight, length of stay, etc.

CONDITION OF PATIENTS DISCHARGED IN 1916.

	No. arrested, Tubercle Bacilli absent from Sputum.	Improved.	Stationary.	Worse.	Died.	Total.
Males	28	39	9	5	3	84
Females ..	23	40	7	8	..	78
Total ..	51	79	16	13	3	162

Presence or absence of tubercle bacilli in patients discharged :—

Men.

Turban* Gernhardt Stadii.	Number of Cases.	Percentage of Total Number.	Tubercle Bacilli Present.	Tubercle Bacilli Absent.	No Sputum Present.	Not Examined.
I.	31	36.9	3	0	28	0
II.	18	21.4	6	2	9	1
III.	32	38.2	21	1	8	2
Died	3	3.5	..	..	..	..
Total ..	84	100	30	3	45	3

Women.

Turban* Gernhardt Stadii.	Number of Cases.	Percentage of Total Number.	Tubercle Bacilli Present.	Tubercle Bacilli Absent.	No Sputum Present.	Not Examined.
I.	25	32.1	0	2	23	0
II.	21	26.9	4	5	11	1
III.	32	41.0	19	4	8	1
Total ..	78	100	23	11	42	2

* *Turban Gernhardt Classification.*

Stage I.—Disease of slight severity, limited to small areas on either side, which in the case of infection of both apices does not extend below the spine of the scapula or the clavicle, or in the case of affection of the apex of one lung, does not extend below the second rib in front.

Stage II.—Disease of slight severity, more extensive than Stage I., but affecting at most the whole of one lobe, or severe disease extending at most to the half of one lobe.

Stage III.—All cases of greater severity than Group II., and all these with considerable cavities.

Working capacity of patients discharged :—

	Males.	*Females.*	*Total.*
Unimpared	50	41	91
Impaired	19	24	43
Incapacitated	12	13	25
Total	81	78	159

Increase or decrease of weight whilst in Sanatorium :—

	Males.	*Females.*	*Total.*
Weight Increased	70	67	137
,, Decreased	6	6	12
Not weighed	5	5	10
Total	81	78	159

Length of stay in Sanatorium :—

Cases in which permanent recovery may usually be anticipated	117.9 days.
Cases in which temporary though possibly prolonged improvement may be anticipated	146.5 ,,
Cases admitted for educational purposes	52 ,,
All patients	105.4 ,,

It is gratifying to observe that the number of cases that were arrested and in which tubercle bacilli were absent from the sputum were twice as great in 1916 as in 1915. This is probably due to some extent to the admission of cases in an earlier stage.

It is also gratifying to know that no patient in whom there is a reasonable prospect of arrest or cure of the disease is discharged owing to lack of accommodation.

There is a further pleasing fact with regard to the administration of the sanatorium, viz., that the waiting list is always small, so that patients are never kept waiting any length of time.

Shelters.—There are at present over 109 shelters in the County. The County Council have provided 94 ; Shrewsbury Borough 4 ; Atcham Rural District 2 ; Whitchurch Urban District Council 2 ; Drayton Rural and Urban District Councils 2 ; Chirbury Rural District Council 1 ; the Ludlow Care Committee 4 ; in addition, several have been provided by private individuals.

The most valuable use for shelters will probably be found in providing living and sleeping accommodation for highly infectious cases. The removal of such a case from a crowded household into a shelter not only removes a most dangerous source of infection but also provides more room for the remainder of the occupants and thus reduces overcrowding. There will always remain a considerable number of cases that cannot be dealt with at home by means of shelters, including especially those cases where the mother of the family is the person affected, and those in which the surroundings of the home do not permit of the use of a shelter. For all these, hospital beds are essential.

Care Scheme.—A Central Care Committee and local Care Committees covering the whole County, have been appointed. Broadly speaking the object of these Committees is to keep in touch with the cases of phthisis throughout the County and by means of advice and help to enable the patients to live as far as possible a " sanatorium life " ; and also to report un favourable conditions that they cannot remedy.

The routine procedure is as follows :—

Reports are sent to the Central Care Committee from the Public Health Department—
(*a*) in all cases recommended for treatment under the Insurance Act ;
(*b*) in all cases discharged from the sanatorium ;
(*c*) in other notified cases where it appears that this can be done without objection.

Reports are sent also by the Medical Superintendent of the Sanatorium on discharge of patients.

These reports are sent to the district committees and they are asked to report periodically. Duplicates of these reports are sent to the County Medical Officer of Health.

The scheme is now in working order and much excellent work is being done.

The work of a care-committee is partly educational and advisory, and in this direction may be extremely valuable, supplementing and emphasising the advice given by the tuberculosis officer and health visitors. In this category are efforts directed to persuading the patient to sleep in a room to himself or at least in a bed to himself, to keep the windows open, the room free from furniture and clean, to sleep and live entirely in a shelter if one is provided, to obtain a better occupation if one is available, and innumerable other matters of a similar nature.

The leaflets and cards drawn up for the instruction of patients with regard to their mode of life and prevention of infection should often be a considerable guide to the ladies on the local Care Committees. A closer association of the local Care Committees with the Health Visitors is desirable and will probably be arranged.

The work of a care-committee is also to give direct help in certain cases. This may take the form of food either for the patient or for the rest of the family. The supply of food to incurable cases of phthisis can hardly be considered a ' public health ' measure. On the other hand to supply food in such cases to other members of the family who are underfed, thus rendering them more likely to resist infection, is sometimes a public health measure of great importance. If the supply of food is undertaken by the care-committee it should be with definite ideas of the ends to be attained, or it may become a committee for poor relief with comparatively little result. Assistance to provide a larger and more suitable house, or a house where a shelter can be used, is a form of assistance that is likely to give excellent value for the money expended. As elsewhere mentioned, this is a form of assistance that might well be undertaken by a Sanitary Authority.

The boarding out of children or the provision of a woman to look after the children may, in certain instances, particularly where the mother of a family is affected, be the only way in which the patient can receive appropriate treatment or the household be preserved from infection.

The question of provision of a more suitable occupation is one of the most difficult that a care-committee has to deal with. Speaking generally there is a great advantage in a person keeping to the occupation he has been trained to. In this occupation he can usually earn more money for himself and family and with less effort than in any other. In many instances, the best course is to keep on with his own occupation under improved conditions. Many occupations are, however, quite unsuitable for a phthisical patient, and in these instances an endeavour should be made to procure a more suitable one. It may be desirable in some cases where funds are available, to supplement the smaller wages of the new occupation so as to provide a sufficient income for the family.

The possibility of continuing sick pay when a phthisical person is engaged in partial work, is a subject that is receiving consideration. It is obvious that as graduated work is part of the treatment of a consumptive person and as a large number of patients are discharged from the sanatorium fit for some work, arrangements of this nature are most desirable.

Wherever houses are not disinfected on the occasions hereafter mentioned, it is very desirable that a communication should be sent to the Sanitary Authority of the district or to the County Medical Officer of Health.

Members of care-committees should call the attention of the District or County Medical Officer of Health to conditions which in their opinion are prejudicial to the health of the patient and which they cannot otherwise get remedied.

Disinfection of Houses.—Much correspondence has taken place between the County Council and Local Sanitary Authorities on this matter.

It was suggested by me that phthisis houses should be disinfected on the following occasions :—

1.—On notification of the case.
2.—During progress of the case, to be determined by the nature of the case and its surroundings.
3.—On removal to the Sanatorium or change of address.
4.—After death.
5.—Disinfection of shelter when it has ceased to be used.

As a result of representations from the County Council most authorities have agreed to carry out this disinfection. The following authorities have not yet signified their willingness to act in accordance with the suggestion, although some of them do disinfect phthisis houses on most of the above occasions :—Bridgnorth and Wenlock Urban Districts, and the Rural Districts of Teme, Wellington and Wem.

Examination of Sputum.—Out of 392 cases notified, the sputum was positive in 125 cases, negative in 43 cases and in 58 cases there was no sputum. No examination appears to have been made in 166 cases.

It is recognised as of the utmost importance that sputum, if present, should be examined in every case of phthisis, and that the examination should be repeated as often as may be necessary to determine the progress of the case or its infectiousness. The County Council have for many years provided facilities for examination of sputum, and practitioners are urged to make the fullest use of these facilities in every case.

Work of Sanitary Authorities in the Prevention of Phthisis.—Dr. Newsholme says in his Annual Report for 1912—13 :—" It will be observed that the Medical Officer of Health is made responsible for the action needed to trace sources of infection, to prevent the spread of infection or to remove conditions favourable to infection. This responsibility rests with him whatever may be the local system of organisation as to tuberculosis. The officers of the tuberculosis dispensary acting independently can only deal with the cases attending the dispensary, including those applying for sanatorium benefit, and cannot undertake the work of cleansing, disinfection, or other sanitary improvements that may be needed."

It must not be forgotten that housing conditions are one of the principal determining factors in the production of tuberculosis. The prevention of tuberculosis by the improvement of housing conditions acts not only in lessening infection but also in perhaps the more important matter of improving the general health and in consequence the resisting power of the people as a whole.

Reports on phthisis houses made by the Health Visitors are forwarded to the Medical Officers of Health. Many of these reports show grave housing defects, that may well be the cause both of the origin and spread of the disease.

The bad effects of the insanitary conditions are greatly accentuated by the occurrence of illness, particularly of a chronic and severe illness like phthisis. In a considerable proportion of houses there is no bedroom that is at all suitable for a sick person, and if the best and largest room is given up to the patient, very gross and dangerous overcrowding is often caused in the remaining rooms. A good deal is often done to relieve these very serious conditions by the provision of a shelter, but in the erection of new houses and in dealing with old houses the necessity for having at least one bedroom fit in every way for a case of chronic illness is one of the important points to be borne in mind.

Sir Arthur Newsholme in his report to the Local Government Board for 1916—17, points out how measures for the improvement of the conditions under which phthisical patients live, *e.g.*, the provision of hospital and sanatorium accommodation, provision of shelters, etc., is not an alternative policy to the proper housing of the community but that they should go on side by side. He says :—" Of the total population (of England and Wales) 2,580,814, or 7.1 per cent. were living in one or two-roomed dwellings, and 4,429,119, or 12.3 per cent. of the total population, in three-roomed dwellings. Under these circumstances the impracticability of providing adequate and still more of providing separate bedroom accommodation for consumptive patients is evident."

As soon as time permits, analysis of the reports on phthisis both with respect to housing accommodation and the mode of infection will be made and should emphasise and throw light upon many important matters.

OPHTHALMIA NEONATORUM.

Forty-nine cases of ophthalmia neonatorum were notified. They occurred in the quarters in the following number :—6, 11, 12, 20—showing a steady increase throughout the year.

In every case where a midwife was in attendance, the case was inquired into as in puerperal fever, and the midwife not allowed to attend further cases of confinement until she had disinfected satisfactorily.

The extreme importance of this disease is due to the fact that the sight may be lost if the case is not properly treated. The prevention of such a disaster is worth a great effort.

The attendance on the cases although improving was on the whole not satisfactory. Thirteen of the cases were sent to the Eye, Ear and Throat Hospital, Shrewsbury, 3 were attended by health visitors, 11 by district nurses, 6 by midwives, 3 at workhouse infirmaries, and 13 by mothers or other relatives. All the cases had medical attendance. In no case does a special nurse appear to have been engaged.

In-patient treatment at the Eye, Ear and Throat Hospital would be the most satisfactory form of treatment if there were sufficient accommodation, except for the fact that the mother has to go into hospital and she is not fit to do this until towards the end of a fortnight. The lack of accommodation however does not permit of the children being always admitted as inpatients and generally necessitates their discharge before they are completely cured. Treatment by a district nurse, even if she is sufficiently trained, is often unsatisfactory on account of it interfering with her other work. This often applies with even greater force to other midwives. Treatment by the mother or by an untrained midwife is most unsuitable except in the mildest of cases. The health visitors obviously cannot attend ophthalmia neonatorum properly without neglecting their other work.

The responsibility of attending to these cases falls on the district councils and the majority of them have authorised their medical officers of health to engage a nurse if necessary. The authorities that have not so far taken this most essential step are the Urban Districts of Bishop's Castle, Bridgnorth and Wenlock, and the Rural Districts of Bridgnorth and Wellington.

Even with this authorisation, the medical officer of health is met with the difficulty that it is almost impossible at the present time to get a nurse in an emergency. For this reason it has been decided to include the nursing of ophthalmia neonatorum in the duties of the two measles nurses that are to be appointed. The district councils that have not come into the scheme will still be in the unfortunate position of not being able to provide this most essential treatment.

The cases in 1916 recovered without the eyes being affected except in one instance, a child born in the Oswestry Rural District. The nursing of this case was left to the mother, and probably as a consequence it has resulted in complete blindness of the child. This instance should be a warning to those sanitary authorities that have not so far provided for the nursing of these cases.

The training of the health visitors in this special work at the Eye, Ear and Throat Hospital, Shrewsbury, is under consideration.

In the Report of the Departmental Committee on the Welfare of the Blind the following passages occur :—

" The treatment of a child with ophthalmia neonatorum means a treatment nearly all day and a good part of the night. This is best done (*Q.* 11,640) by a trained nurse, but if not a trained nurse, it may be done by some competent woman, who is able to do it either under instruction or after instruction. The eyes must be very frequently cleansed, some antiseptic lotion applied, and at regular intervals some strong germicidal application has to be applied to the eyes. The child must be visited every day by the trained nurse or by a medical man, to see what progress is being made, and to ascertain if these applications are being applied systematically and efficiently. It was explained by Mr. Lawford (*Q.* 11,641) that in the majority of cases this treatment can be effectively carried out in the child's home."

" It is, however, essential that hospital accommodation should be provided for the child (if necessary, for the mother also) in a certain number of cases. The disease is more prevalent in squalid homes, where efficient treatment cannot be secured, than in those where better conditions prevail."

" 51. We have come to the conclusion that—

" (i) Steps should also be taken to ensure uniform and effectual notification, which would be also enforced in Scotland."

" (ii) Arrangements should be made to secure immediate treatment of all cases notified —in which connection competent nurses or health visitors, for whom a grant is obtainable under the Infant Welfare Scheme—might well be utilised."

" It is to be noted that Maternity and Child-Welfare Grants to the extent of 50 per cent. of the cost of medical assistance (including nursing) are now payable under Local Government Board regulations to local authorities who make provision for such assistance. We would, therefore, urge local authorities to take action in the matter."

" (iii) Hospital accommodation should also be provided wherever it is deficient."

" (iv) The amendment of the instructions to midwives should receive early consideration."

NOTIFICATION OF BIRTHS.

Maternity and Child Welfare.

The Notification of Births Act although adopted for the whole county in 1914, was only put in practical operation in October of 1915.

A short explanatory extract of the Act was sent to all medical practitioners and practising midwives in the County.

During the year, 4,172 notifications were received referring to 4,029 live births and 143 stillbirths

Three thousand one hundred and eighteen of these notifications were sent in by midwives, 785 by medical men, 60 by parents and other persons, 172 by registrars and 37 by health visitors.

The number reported by registrars and health visitors may be taken to represent failures to notify.

In the Borough of Shrewsbury where the Notification of Births Act has been adopted for some years, 602 notifications were received, of which 522 were sent in by midwives.

Lists of all notifications are sent to the Superintendent Registrars every month, so that they may take steps with regard to any failure to register and on the other hand supply to us any omissions or corrections.

In every case where there was failure to notify, the midwife or medical practitioner was communicated with.

Arrangements for Child Welfare.—The County Council decided that the first and most important part of the work of child welfare consisted in a good system of health visiting by which infants and mothers are visited in their own homes, advice given, medical treatment suggested where necessary and unhealthy conditions removed where possible.

Health Visiting is now carried out by six whole time health visitors stationed in different parts of the County who also do the work of inspection of cases of tuberculosis, and by 42 district nurses who do the health visiting in the parishes of their districts.

In 1916 the visits paid by the health visitors to infants were :—

	1st	*2nd*	*3rd*	*Subsequent.*	*Total Visits.*
Whole Time ..	4010	2749	1519	2943	11221
Part Time	528	351	273	440	1592
Total	4538	3100	1792	3383	12813

and visits to expectant mothers numbered 754.

On the first visit 2930 children were breast fed, 502 were artificially fed and 1360 were fed partly naturally and partly artificially.

The final object of health visiting and of this welfare work generally is to save the life and improve the health of the children and mothers. The children dealt with in the scheme are all under school age. To effect this main object the health visitors have to work along various lines, the principal of which are—advice and instruction to the mother with regard to feeding and care of her child and herself, removal of adverse and insanitary conditions, advising medical treatment for physical defects or for malnutrition or lack of progress. By these various means it is hoped that many children's lives will be saved, that mothers will escape many of the dangers of child birth and that children at school age will be better developed and freer from those defects that so many of them suffer from now on entering school.

To make the work of health visitors really efficient there should be provision :—

(1) of more health visitors ;

(2) of educational facilities for health visitors ;

(3) of more child welfare centres.

Particular stress is laid upon the provision of educational facilities for health visitors.

Child Welfare Centres.—Centres have now been formed in Wellington, Bridgnorth, Oswestry and are in process of formation in Oakengates, Ironbridge and Whitchurch. There is also a small centre working at Ellesmere and a School for Mothers in Shrewsbury.

The Wellington Centre did excellent work. The total number of attendances of babies during the year was 1539. There are 278 babies and 13 expectant mothers on the register.

The Bridgnorth Centre only opened on 3rd February, 1917, but the attendance is already good.

The objects of these centres may be briefly stated—(*a*) to provide medical advice for all children not progressing satisfactorily and medical advice for expectant mothers ; (*b*) to help and support the health visitor in her work by explaining and supplementing the advice she gives at home and creating a greater public interest in the work ; (*c*) a general educational centre in all branches of domestic hygiene.

To effect these objects there are certain essentials :—

1.—The centre must be under the constant supervision of a medical practitioner who has given special attention to this work.

2.—The centre should work as part of the County Council scheme and the County Council health visitor should be the nursing superintendent.

3.—The centre should work in close co-operation with the Sanitary Authority, as there is no doubt that infant health depends very greatly upon sanitary conditions.

These conditions have been observed in the formation of the different centres.

So far, centres have been formed by voluntary associations, working in close co-operation with and supported by the County Council and the Local Sanitary Authorities. This method has the advantage of creating great local interest—a very important matter. There may be disadvantages, but these have not been obvious so far.

The question of efficient medical attendance at the centres will have to be considered shortly. At present there are grave difficulties in the way of making any permanent arrangement owing to the great shortage of medical men. The course that suggests itself as likely to prove the most efficient, is for the County Council to appoint a lady medical practitioner, with special experience in this particular work, to attend the various centres in the County. She would be able to attend the larger centres weekly and the smaller centres perhaps once a fortnight. Worked in this way the centres would become a very valuable part of the child welfare scheme. The combination of the medical services under the child welfare scheme with the medical inspection of school children is now under consideration.

Provision of a Midwifery Service.—For many years it has been pointed out in these reports that with the decrease of the "bona fide" midwives, a new midwifery service would have to be created. The problems to be met were the provision of midwives and their maintenance. In order that there should be a sufficent supply I recommended as long ago as 1908 that the County Council should train 12 midwives each year. This number was accepted but the number sent for training has in some years fallen considerably short of this. The actual number of women trained were :—1908, 11 ; 1909, 9 ; 1910, 10 ; 1911, 5 ; 1912, 13 ; 1913, 12 ; 1914, 4 ; 1915, 12 ; 1916, 15.

The most serious problem is not however the training of the midwives but their maintenance. Recent letters and circulars of the Local Government Board make it clear that the Board considers that a County Council should make itself responsible for the establishment of an efficient midwifery service in its County. The County Council may proceed in one of two ways in any district. They may place a midwife and pay or guarantee a salary, or they may pay the midwifery cost of the maintenance of a nurse-midwife by a nursing association. For this purpose, the cost of a nurse-midwife is apportioned as half due to midwifery and half to nursing.

Fifty per cent. of the grants or payments made by the County Council for midwifery services is repaid by the Local Government Board. Speaking generally, the best method of providing midwives for rural districts is probably by the establishment of district nursing associations, the nurse undertaking both general nursing and midwifery. She can frequently also undertake other work for the County Council such as school nursing and health visiting.

If there are districts however in which a midwife is needed and it is not found possible to start an association, it will be necessary for the County Council to establish a midwife and give some guarantee as to maintenance.

A return has been made showing the rural parishes in need of a midwife and they have been grouped in suitable areas for nursing associations. The following is a list of the areas :—

Suggested Nursing Areas.

1.—Albrighton, Astley, Battlefield and St. Alkmond.
2.—Westbury and Wollaston.
3.—Church Pulverbatch and Smethcott.
4.—Morville, Upton Cressett, Aston Eyre, Tasley and Astley Abbotts.
5.—Chelmarsh, Eardington and Oldbury.
6.—Chetton, Middleton Scriven, Deuxhill, Glazeley, Billingsley and Sidbury.
7.—Wistanstow, Sibdon Carwood and Halford Ecclesiastical Parish.
8.—Stottesdon.
9.—Kinlet.
10.—Hopton Wafers, Part of Cleobury Parish, Farlow, Cleeton St. Mary and Silvington.
11.—Clun.

12.—Newcastle and Bettws-y-Crwyn.
13.—Clungunford, Hopton Castle, Bedstone and Bucknell.
14.—Welshampton, Lyneal and Colemere.
15.—Bitterley Ecclesiastical Parish, Hopton Cangeford and East Hamlet.
16.—Knowbury Ecclesiastical Parish.
17.—Cold Weston, Heath, Clee St. Margaret, Stoke St. Milborough and Abdon.
18.—Kinnerley and Melverley.
19.—Llanyblodwell and Sychtyn.
20.—Trefonen Ecclesiastical Parish.
21.—East Part of Oswestry Rural Parish (Morton and Oswestry Ecclesiastical Parishes).
22.—Badger, Beckbury, Kemberton, Ryton and Boningale.
23.—Sheriffhales, Boscobel and Tong.
24.—Kinnersley, Preston-on-the-Weald-Moors and Part of Hadley.
25.—Lee Brockhurst and Weston & Whixhill.
26.—Whitchurch Rural—Western Part (Tilstock).

Associations have already been formed and nurses provided for Nos. 7, 9, 11, 26, and parts of 15 and 16. In many other districts, associations are in process of formation. The rapidity with which this work can be carried out is limited by the number of trained midwives that can be obtained.

Until associations can be formed covering the whole County or trained midwives otherwise provided it will be necessary to have a number of emergency midwives who can be sent to a locality as needed. This can best be done by arrangement with the Shropshire Nursing Federation.

Payment of Medical Fees.—The County Council can pay the fee where a doctor is called in by a midwife, for a necessitous woman ; and the County Council can also pay the fee where a doctor attends a necessitous case and a competent midwife is not available. Half such expenditure is repaid to the County Council by the Local Government Board. The necessity for the provision of fees in such cases has not been brought prominently to my notice.

Hospital Treatment.—Nothing has been done so far with respect to the provision of hospital beds for women and children.

In connection with child welfare work it is very desirable that there should be some beds for children who are suffering very severely from effects of improper feeding and who cannot be properly treated at home. These lives can frequently be saved if the infants can be treated in an institution. Mrs. Dugdale, of Meeson Hall, has very generously started a small home to deal with these cases in the Wellington District. The home will prove most valuable as an adjunct to the child welfare work of the district and will also give us valuable information in dealing with the County as a whole.

It is desirable also that there should be further facilities for the treatment of infants in connection with the hospitals of the County. If necessary these beds might be subsidised by the County Council.

The question also of the provision of maternity beds should be considered. These would be for two separate and distinct purposes—(1) for difficult and complicated labours, (2) for women in homes where there is no proper accommodation and for women in very out of the way places where proper nursing and medical attention cannot be provided. What necessity there exists for these cases I am not prepared to state. It must exist to some extent, but it has not been brought under my notice and no special inquiry has been made. The custom in this County, and speaking generally in the country as a whole, is for a woman to be confined at home however unsuitable the surroundings, and it would probably be some years before institutional treatment of such cases were viewed with favour. The health visitors have, however, expressed the opinion strongly that many women in out of the way situations and in unsuitable homes would avail themselves of institutional accommodation if provided.

Provision for difficult confinements could probably best be made in connection with existing hospitals. On the other hand provision for ordinary confinements could best be made in connection with small nursing centres if it is found desirable to start them in the small towns of the County.

Poor Law and Child Welfare.—It is most important that an infant should not suffer from the inability, either real or imagined, of the parent to afford medical treatment. In this particular direction the policy of the Guardians should be a liberal one. Medical relief is all the more important in the case of children as the treatment prescribed may include a supply of milk, and the deficiency of this food may be at the root of all the trouble. Close co-operation between the health visitors and the relieving officers is most desirable. They may help each other very considerably. The health visitor can call the relieving officer's attention to the cases that require assistance and she may help to see that the relief granted is properly used. The problem of assisting the children of parents who will not go or who should not go to the workhouse has not yet been satisfactorily solved. Widows with children do receive this kind of assistance but if there is a father, however incapable and useless he may be, no assistance can be given and the children suffer. The problem is full of difficulties, but some solution should be possible which whilst not allowing the children to suffer, will also not allow the parent to escape his responsibilities. The position of Boards of Guardians as a part of the scheme of Child Welfare should be recognised, and for this purpose, as soon as a favourable opportunity occurs, means should be taken to obtain the closer co-operation of the Guardians in this work.

Prevention of Dental Caries.—There is probably no other direction in which child welfare work is likely to be so fruitful as in the prevention of dental caries. The reason for this statement is in the first place that dental caries affects practically every individual and very often with serious and far reaching detrimental results and in the second place it is mostly preventable.

Up to about the last twelve months we have had to rely almost entirely upon our teaching through the schools. Now, measures are being taken that will bring this knowledge in as practical a manner as possible into every household in the County where there are young children.

It will be profitable here to briefly review what has been done in this County so far, to prevent dental caries.

The methods of prevention are based on the teaching of Dr. Sim. Wallace, who is described by the Editor of *The British Dental Journal* as " the greatest living expert on this branch of knowledge."

Many of his conclusions have been confirmed by investigations in connection with school children in this County, and by laboratory experiments.

The first step taken was to bring the matter before the medical practitioners in the County by means of a paper read by the County Medical Officer of Health at the Salop and Mid-Wales Branch of the British Medical Association, on October 4th, 1910, and afterwards by sending a copy of the paper to every medical practitioner in the County.

Lectures have been given at centres in every part of the County to elementary school teachers. The large majority of the teachers attended and they were asked to make the prevention of dental caries one of the common subjects for informal talks to the children. They were also asked to put the principles into practical operation with regard to the mid-day meal of those children remaining at school. The lectures dealt entirely with the prevention of dental caries on physiological lines.

It was evident that to make any real impression upon the mass of the public, it was necessary to draw up a few concise rules, easily understood and easily carried out, that should be observed by the individual. This was done and the following rules have since been made the basis of the teaching and have been distributed through the schools and in other ways to the large majority of houses in the County.

(1) As soon as an infant needs food other than milk (8—9 months) give it in a solid hard form requiring mastication, such as crusty bread, twice baked bread, or crisp toast. In this way good teeth are likely to grow and good habits of mastication will be formed. **Never give bread soaked in milk, or flour added to milk, or other soft starchy foods** (such as most patent foods).

(2) As the child grows up you should still give most of the food in a hard form, compelling mastication. Food should rarely be taken in a liquid form, or soaked in liquid or minced. Bread should not be eaten new, and it should have plenty of crust.

(3) Drinking between each mouthful is very injurious. Liquids should only be taken at the end of a meal or between meals.

(4) **Sweets should never be taken between meals, nor the last food in a meal** ; but only along with food requiring mastication.

(5) **A meal should always be finished with a cleansing food** (see below). It is very desirable that fresh fruit should be eaten freely, particularly at the end of a meal. This is most important with regard to the last meal of the day.

(6) Mouth breathing in children should always be corrected, and if obstinate, medical advice should be obtained.

EXAMPLES OF FOODS

Starchy Foods.	Sugary Foods.	Cleansing Foods.
Bread, Biscuits, etc.	All food to which sugar is added.	Fresh fruits—particularly apple—nuts.
Potatoes.	Sweets of all kinds.	Raw vegetables—celery, radishes, lettuce, onions, carrots, etc.
Rice, Tapioca, Sago, etc.	Honey.	Crusts of bread, crisp toast, twice-baked bread.
Oatmeal porridge, and similar foods.	Milk.	Meat, fish, bacon.
Patent food.	Jams.	
	Marmalades.	
	Patent foods.	

It is now possible to conduct a much more efficient campaign by means of our six whole time health visitors and by means of the 40 district nurses who are acting as part time health visitors. This scheme of health visiting has been working for about 2 years and by this time some knowledge as to the prevention of dental caries should have been brought into every house where there are children under 2 years of age. The health visitors are instructed to call the attention of the mother to the importance of following these instructions when the infant is about 8 or 9 months old and to insist upon them up to school age. Where a health visitor does this work intelligently and with enthusiasm the result in a large proportion of cases must be good.

For research purposes the health visitor sends in the names of all mothers whom they think will carry out this work of prevention satisfactorily. When the scheme has been working for 5 years and these children come to school, it will be possible to make a careful comparison of their teeth with those of the other children. By this means most reliable material will have been obtained for inquiring into the effect of the measures that have been advised. It is the only conclusive method of inquiry and it will I believe be the first of this kind that has been attempted on a large scale.

SCHEME FOR THE DIAGNOSIS AND TREATMENT OF VENEREAL DISEASE.

The scheme which is now approaching completion includes :—

(1) The provision of facilities for diagnosis in connection with the Birmingham University.

(2) The establishment of treatment centres at (*a*) Wolverhampton and Staffordshire General Hospital, Wolverhampton, and (*b*) Shrewsbury.

(3) The supplying of salvarsan substitutes to practitioners who have the qualifications specified by the Local Government Board.

Bacteriological examination outfits and salvarsan substitutes will be supplied by the County Public Health Office.

The question of the formation of other centres is under consideration. It is hoped that it will be possible with the consent of the authorities of the hospitals in the large towns undertaking this treatment, to advertise the facilities for treatment that are available in these institutions. As soon as the agreements are signed with Birmingham University and Wolverhampton and Staffordshire General Hospital, all medical practitioners will be written to and full information of the arrangements will be given to them.

The question of educational propaganda should then be considered.

Two members of the local branch of the British Medical Association have been appointed to consult with the Public Health Sub-Committee as occasion arises.

HEALTH VISITING OF MEASLES.

A scheme has been got out and is being put in operation for the health visiting and nursing of measles and ophthalmia neonatorum. Two nurses are being engaged for this purpose. The following sanitary districts have come into the scheme :—The Urban Districts of Bishop's Castle, Church Stretton, Dawley, Ludlow, Market Drayton, Newport, Oakengates, and Whitchurch, and the Rural Districts of Atcham, Burford, Church Stretton, Cleobury Mortimer, Clun, Drayton, Ludlow, Newport, Shifnal, Wem, and Whitchurch.

SCHOOLS AND SCHOOL ATTENDANCE.

The medical inspection of schools and school children of the whole County, with the exception of the Borough of Shrewsbury, is dealt with in a separate report to the Education Committee.

The inspection is carried out by two whole-time medical inspectors, and in the Borough of Wenlock by three practitioners. The work is supervised by the County Medical Officer of Health, who is also the School Medical Officer. Arrangements have been made for school nursing for a little over one-third of the County.

In the Borough of Shrewsbury the Medical Officer of Health is the School Medical Officer, and there is one school nurse.

The total number of nurses undertaking school nursing in the County, including the Borough of Wenlock, is 69, and the number of school departments attended is 197. Of these nurses, 57 are employed by associations affiliated with the Shropshire Nursing Federation, 6 by other associations, 4 by the Borough of Wenlock, and 2 work on their own account.

I would again quote my remarks on school attendance in last year's report as I regard laxity in enforcing school attendance as a real danger :—

Recent visits to the homes of absentees, and observation of the conditions under which the children were living, have strongly impressed upon me the idea that regular school attendance is a health measure of the greatest importance. An extract from a memorandum sent to the Secretary for Elementary Education gives my views upon this matter :—

" Attendance at school means at least a partial daily cleansing and some attempt at decency and cleanliness of clothing.

" I am convinced that the greatest influence in promoting personal cleanliness amongst children is regular school attendance and I am inclined to attribute a considerable part of the improvement of public health during the last 30 years to the greater cleanliness brought about by school attendance and the habits thus formed. Consequently I view with considerable apprehension the laxity as regards attendance that exists in some districts at the present time."

" It must be remembered that it is just the children who most need supervision that are kept away when attendance is not enforced and a falling off of 10 per cent. in the attendance may mean that almost all the children of this class are kept away. As a public health measure of great importance, I would urge the desirability of enforcing attendance by every means available."

BACTERIOLOGICAL DIAGNOSIS OF DISEASE.

Quarters of 1916.	For Typhoid Fever. Widal's Reaction.		For Diphtheria.		For Phthisis.	
	Positive.	Negative.	Positive.	Negative.	Positive.	Negative.
First	2	8	45	115	28	102
Second	1	7	47	132	31	107
Third	1	11	64	166	30	108
Fourth	4	7	42	146	22	66
Whole Year	8	33	198	559	111	383
	41		757		494	

The total number of specimens sent was 1,292, compared with 2,112 in 1915, 2,408 in 1914, 1,344 in 1913, 1,118 in 1912, 1,212 in 1911, 1,424 in 1910, 827 in 1909, 620 in 1908, 497 in 1907, and 393 in 1906.

In addition, two samples of faeces and 44 samples of blood were examined for dysentery, eight samples of cerebro-spinal fluid, 133 samples of hairs were examined for ringworm spores, and 1 sample of pus for plague.

HOSPITAL ACCOMMODATION.

Existing Isolation Accommodation.—(1) *For diseases other than small-pox.*—This consists of (1) a hospital at Shrewsbury, with 20 beds for scarlet fever; 4 beds for a second disease, and 2 beds for a third disease; (2) a small hospital at Bridgnorth, also used for small-pox; (3) a hospital of 4 beds for the Newport Urban District; (4) a hospital of 8 beds at Market Drayton for the Market Drayton Urban District and Drayton and Blore Heath Rural Districts.

(2) *For Small-pox.*—A summary of the small-pox hospital accommodation in the County was given in the Report for 1914 and for this accommodation reference can be made to that report.

The scheme for providing the County with hospital accommodation for infectious disease other than small-pox, and with accommodation for advanced cases of phthisis is held up until after the war.

The Local Government Board is urging every sanitary authority to secure provision for isolating small-pox.

In my report for the third quarter of 1914 I said :—" I have reported that a small hospital near Shrewsbury with a motor ambulance would be the best provision for those districts in the County that have no hospital accommodation for small-pox. In the meantime arrangements should be entered into by those sanitary districts without provision, for use in case of emergency of the hospitals already in existence. Such an arrangement would probably take the form of a retaining fee and a charge per week for each patient admitted. The payment would probably enable the owners of the hospitals to put them into greater readiness without further expense to the district. On these lines there should be no special difficulty in providing for the whole County with little additional expense. It should of course be understood that such provision would only be for initial cases and to give time, in case of any considerable outbreak, for further provision."

The Sanitary Authorities concerned were communicated with and this view put before them. The definite suggestions made were that :—

Bridgnorth Urban and Rural	should apply	for	the use of	Broseley Hospital.
Ellesmere Urban and Rural and Oswestry Urban and Rural	,,	,,	,,	Whitchurch Hospital.
Newport Urban and Rural	,,	,,	,,	Wellington Hospital.
Oakengates	,,	,,	,,	Wellington Hospital or Shifnal Hospital.
Atcham	,,	,,	,,	Shrewsbury Hospital.
Bishop's Castle	,,	,,	,,	Ludlow Hospital.
Clun	,,	,,	,,	Ludlow Hospital.
Church Stretton Urban and Rural	,,	,,	,,	Ludlow Hospital.

The only result has been that Atcham Rural District Council have made arrangements with the Borough of Shrewsbury.

Further efforts are now being made.

HOUSING.

The provision of houses for the working classes, has been practically at a standstill and in consequence little has been done to prevent overcrowding. Shortage of labour and the embargo put on any considerable expenditure have caused the repair of houses in many districts to fall much in arrear. Expenditure on houses to keep them in a reasonable sanitary condition is a legitimate expenditure and the remedying of insanitary conditions should be enforced up to the limit fixed by the available labour in the district.

It is universally acknowledged that there are great housing problems in front of us and those districts will be best prepared that have the most complete record of housing conditions. For this and other reasons, it is important that the work of inspection should be pushed on with vigour.

Sir Arthur Newsholme in his Annual Report for 1915—1916 says :—" No family can be regarded as housed under conditions which fulfil the needs of health unless the house or tenement provides adequate sleeping accommodation, and comes up to the following minimum standard in other respects :—

" 1.—An adequate kitchen and living room, possibly the two combined.
" 2.—Cool and dustless storage for food.
" 3.—A scullery with sink and water supply within the dwelling.
" 4.—Satisfactory storage for coal and a movable covered ashbin.
" 5.—Separate sanitary conveniences for each family.

" Cleanliness and avoidance of food contamination cannot reasonably be expected unless these conditions are fulfilled : and the list of requirements here set out cannot be regarded as completing what is desirable."

It is quite obvious if this is accepted as a minimum standard, a large number of new houses will be required in every district in the County and an enormous amount of reconstruction.

It is of the utmost importance that building shall be carried out on right lines so as to secure a plentiful supply of fresh air, sunlight and open space to every house.

The following are extracts from the District Annual Reports :—

Chirbury Rural.—" . . . This will probably mean an influx of population, and as the houses in that district are old and in many cases not up to the modern standard of construction, etc.. in the near future considerable care will be needed to prevent undesirable conditions of sanitation arising."

Dawley.—" As many of the houses are made dangerous to health in consequence of their defects, I think it is only right that pressure should be brought to bear to get the work done, especially those where the drainage is bad and the houses are very damp."

Ludlow Urban.—" Nine houses were represented for closure and orders were made by the Council. Two were put in repair after closure and one was demolished. A large amount of work is outstanding under notices issued in previous years, but it is impossible to insist on the work being done under the present labour conditions."

Ludlow Rural.—There has been no inspection on account of it being impossible to get the houses previously reported put into repair.

Shrewsbury.—Two houses were represented for closure. The necessary works were carried out.

" The Council's second Housing Scheme, which provides for 100 new houses to be erected on a site in Castle Fields, still awaits the necessary sanction of the Local Government Board."

" In the meantime the seriously overcrowded condition of a large number of houses cannot be properly dealt with, nor can effective action be taken in regard to the considerable number of houses which are unfit for human habitation."

Wellington Urban.—" There were no additions to the workmen's type of house during the year, and three were closed as unfit for habitation."

Wenlock.—Two houses were represented as unfit for habitation but no closure was made. " With regard to a number of houses in Price Street, Madeley, in which there were serious defects in drainage and closet accommodation, the Committee decided, on my recommendation, to insist upon sanitary improvements being effected, leaving internal repairs to be done as soon as possible after the war. Good sanitary work was done in consequence at some of the property."

WATER SUPPLIES.

Owing to the restrictions put upon expenditure little or no work has been undertaken for the improvement of water supplies.

Whitchurch Rural.—" Army Food Supplies.—In this connection I have to draw attention to the unsatisfactory state of the water-supply to a number of shops of temporary construction erected on the main road bounding the Camp on the west side. I made an inspection in September. There were some fifteen shops abutting on the road over a length of about 350 yards. Several were used as dwellings also, and some dealt in food and refreshments for the troops. The water-supply was from four or more pumps over shallow wells sunk in the subsoil of the backyards. These yards are very limited in area and were in general use for disposal of slop water and liquid waste. In some cases no drains existed and the slops were thrown on the surface.

HOUSING AND TOWN PLANNING ETC., ACT, 1909.

Regulations under Section 17, Article V.

Analysis of Work done in the year 1916 under these Regulations.

SANITARY AUTHORITY.	Number of houses inspected.	Number of houses thought to be unfit for human habitation.	Number of representations to Sanitary Authority of unfitness.	Number of closing orders made.	Number of houses in which defects were remedied without closing orders.	Number of houses put into a fit state after closure.	Number of demolition orders made.	Number of these houses pulled down.	Number of houses still under consideration.	General Character of Defects found in course of this Inspection.									
										Water Supply.	Closet accommodation.	Drainage.	Defects of dwelling house in regard to				Paving, Draining, and sanitary condition of yard or outhouse.	Arrangement for deposit and disposal of house refuse.	Rooms unfit for habitation under Sec. 17 (7).	Other defects.
													(a) Light.	(b) Free circulation of air.	(c) Dampness.	(d) Cleanliness.				
URBAN DISTRICTS.																				
Bishop's Castle ..	8	..	..	1	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bridgnorth	15	..	..	..	15	..	..	..	..	..	15	..	5	10	..	..	6	..	..	10
Church Stretton ..	32	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dawley	53	3	3	3	9	1	..	..	83	..	47	52	2	2	14	14	2	..	..	22
Ellesmere	2	..	..	..	2	..	..	..	..	..	..	13	..	..	1	..	2	..	..	..
Ludlow	15	9	9	9	..	2	1	1	11	..	2	2	6	6	15	4	15	9	..	10
Market Drayton ..	56	..	..	..	50	..	..	..	6	..	8	3				25			..	20
Newport	9	..	..	..	9	..	..	5	60	7	9	9	..	..	7	6	9	9	..	..
Oakengates	75	2	2	2	20	..	..	..	55	10	56	64	54	30	53	20	36	53	..	..
Oswestry	4	1	1	..	4	..	..	..	..	..	1	..	..	..	1	3	1	..	..	3
Shrewsbury	79	..	..	2	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wellington	105	3	3	3	42	..	..	..	68	..	37	9	5	5	7	17	15	15	..	22
Wem	12	..	..	..	12	..	..	..	..	..	..	1	..	..	6	2	3	..	..	6
Wenlock	225	2	2	..	105	..	..	..	91	..	..	..	..	..	..	..	..	..	..	..
Whitchurch	169	..	..	..	75	..	..	..	8	..	..	..	..	..	..	..	..	..	..	..
RURAL DISTRICTS.																				
Atcham	189	..	..	..	41	..	..	..	84	..	..	..	..	..	..	..	..	..	..	..
Bridgnorth	130	5	5	1	4	1	..	..	..	24	15	21	2	3	7	2	6	..	..	..
Burford	3	..	..	..	1	..	..	..	2	1	2	3	..	..	..	..	3	..	..	..
Chirbury	Not received.			..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Church Stretton ..	136	..	..	1	15	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Cleobury Mortimer ..	20	..	..	..	3	..	..	..	17	..	9	3	2	1	6	49	14	20	..	39
Clun	95	..	..	..	23	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..
Drayton	Nil.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ellesmere	24	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ludlow	19	2	2	6	..	..	..	..	11	19	19	19	2	..	5	1	6	..	..	..
Newport	Nil.	..	..	..	12	..	..	4	76	..	..	..	..	..	4	2	10	6	..	6
Oswestry	Nil.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Shifnal	Nil.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Teme	53	2	2	..	4	..	..	..	..	..	4	2			3				..	..
Wellington	Not received.			..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wem	Nil.			..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Whitchurch	30	..	..	..	20	..	..	..	10	..	..	..	..	..	..	..	..	..	..	..

Record of Sanitary Work done during the Year 1916.

Table showing the work done by the various Sanitary Inspectors; the returns are made on a uniform plan as far as possible.

SANITARY AUTHORITY.	Number of houses which have been inspected during the year, either in connection with outbreaks of Infectious Disease, or in consequence of complaints, or in course of a Systematic Sanitary Survey.	Total number of notices of all kinds served, including both formal and informal notices.	Number of such notices complied with.	Letters written.	PARTICULARS OF SANITARY MATTERS REFERRED TO IN THE ABOVE NOTICES.								Houses disinfected after infectious disease (other than phthisis).	Houses disinfected in case of Phthisis.	Privies converted to water closets.	Privies converted to earth closets.	Plans for New Houses passed.	Certificates issued for water supply to New Houses.	Houses connected to public water Supply.	Repairs to Public Pumps and Wells.	New Public Wells.	Private Wells reconstructed or improved.	Houses connected to Public Sewerage.	Lengths of New Sewers laid.	Lengths of New Water Mains laid.	Proceedings before Magistrates
					Houses to be disinfected after Infectious Disease.	Deficient or objectionable Water Supply.	New drains to be constructed or old drains to be amended.	New closets to be provided or old ones to be amended in construction.	Houses damp, dirty, or admitting rain, or weather, or otherwise in a bad sanitary condition.	Offensive accumulations of all kinds.	Animals so kept as to be a Nuisance.	Houses overcrowded.														
URBAN DISTRICTS.																										
Bishop's Castle ..	43	10	6	..																						
Bridgnorth	750	7	6	20	10	..	9	8	6	5	1	..	5	5	3	..			2	..	..	..	..	..	..	..
Church Stretton ..	84	14	14	..	..	..	7	4	1	2	..	..	..	..	..	..	2	..	2	..	..	..	..	120 yds.	..	..
Dawley	134	77	75	220	9	..	58	51	52	39	1	2	4	5	7	19	1	..	1	..	..	2	..	113 yds.	..	..
Ellesmere	15	28	28	18	6	..	..	2	3	72	..	..	5	1	..	..	..	..	..	..	..	..	410 yds.	..	..	1
Ludlow	158	19	5	..	52	..	11	2	17	3	2	2	27	25	2	..	..	..	..	..	..	..	..	..	..	..
Market Drayton ..	525	107	100	207	50	..	27	17	49	46	2	2	45	5	12	1	1	..	..	..	..	..	..	..	..	..
Newport	173	18	14	117	3	11	12	9	7	3	2	..	1	2	7	..	..	..	14	..	..	..	12	..	..	2
Oakengates	75	125	73	130	36	..	123	70	30	6	..	8	30	6	70	..	..	..	20	..	..	..	200	1150 yds.	100 yds.	..
Oswestry	1000	221	210	19	..	..	23	26	6	168	..	1	59	14	..	..	1	..	1	..	..	..	1	..	..	1
Shrewsbury	79	221	170	234	231	..	..	..	..	..	..	..	..	..	..	..	6	..	..	..	..	..	..	..	..	..
Wellington	297	117	72	205	15	..	13	37	31	15	2	3	25	7	27	..	..	..	2	..	..	..	..	..	..	1
Wem	256	82	82	17	4	..	12	7	22	725	3	..	9	..	2	..	..	..	..	..	..	..	..	..	..	..
Wenlock	2197	294	192	..	..	..	..	..	..	..	..	..	..	..	3	4	..	..	..	..	..	..	1	..	..	..
Whitchurch	626	180	174	..	..	..	..	..	..	..	..	..	..	..	4	..	5	..	12	..	..	..	5	..	..	..
RURAL DISTRICTS.																										
Atcham	281	78	35	..	..	..	7	4	1	2	..	..	..	..	8	32	6	8	..	..	..	..	..	..	..	..
Bridgnorth	900	101	99	..	22	24	21	15	23	11	..	2	21	1	..	9	..	4	..	1	..	24	..	..	..	..
Burford	18	4	3	22	1	1	1	..	..	..	..	1	5	1	..	..	..	..	..	..	..	1	..	..	..	..
Chirbury	Not received.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Church Stretton ..	..	57	32	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cleobury Mortimer ..	62	149	149	115	44	4	29	17	4	109	1	8	39	5	..	..	..	1	..	1	..	7	..	..	..	..
Clun	231	73	68	..	..	..	..	..	..	..	..	..	..	..	..	5	..	..	1	1	..	2	..	..	..	..
Drayton	345	40	34	..	42	7	12	7	17	14	6	2	34	8	..	4	..	..	..	..	..	..	..	..	..	..
Ellesmere	83	16	6	29	..	..	3	6	5	1	..	2	43	4	..	..	4	..	..	..	..	..	..	..	..	..
Ludlow	Not received.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Newport	154	31	27	188	14	1	10	6	8	..	..	..	32	3	..	41	8	8	..	..	..	..	9	100 yds.	..	..
Oswestry	650	84	70	500	240	..	9	..	10	50	..	..	64	12	..	..	2	12	12	10	2	4	12	..	..	..
Shifnal	530	45	38	40	22	4	36	7	7	14	5	2	22	6	11	1	..	..	5	..	..	2	4	..	..	..
Teme	53	3	3	5	..	..	..	4	3	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..
Wellington	120	24	..	30	24	3	15	18	14	31	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wem	656	43	43	178	23	18	38	27	21	2	..	2	18	2	..	..	2	4	..	2	..	12	..	..	..	..
Whitchurch	90	40	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	7	..	..	..	..

Others had short lengths of drains laid to soak-away cesspits in the yard. The yards were generally in an untidy and littered condition. I reported to the Council that the water-supply was dangerous and defective being from subsoil wells liable to drainage contamination, and I recommended the Council to arrange for the purchase of water from the Camp system of supply and to lay it to stand pipes for these shops. The Council decided to ask permission for the owners of the shops, etc., to connect up with the Camp supply, but no action resulted as the Camp authorities, I was informed, did not at the time consider that they had water to spare. Some improvements in the drainage disposal and sanitary condition of the yards have resulted from the Inspector's periodical supervision. I am strongly of opinion that the question of water-supply should again be taken up, and the Council should if possible arrange to purchase pure water, if necessary by meter, from the Camp and lay it on to these shops. The amount needed would not be large, and if laid to stand pipes waste would be prevented. As water must be used considerably for refreshments supplied to the troops it is especially necessary that the supply should be from a pure source."

This matter urgently needs attention.

There is now an opportunity for the Oakengates Urban District Council to become owners of their water supply and it is most desirable that they should do so. It is one of the important steps in the sanitary and general development of the district. The improvement of the water supplies of Ketley Bank and Craven Arms should be proceeded with, as soon as such schemes are permitted. They are undoubtedly matters of urgency.

SCAVENGING.

It becomes more and more evident that a good system of scavenging is one of the first essentials of a healthy town. Even with the present scarcity of labour every effort should be made to carry out the scavenging in an efficient manner, and after the war the storage of household refuse and its removal and disposal should generally speaking be carried out much more efficiently.

Details of what is required were set out on page 39 of the Annual Report for 1915.

There are few references to or suggestions for improvement of scavenging in the district reports this year.

MILK SUPPLY, AND INSPECTION OF DAIRIES, COWSHEDS, MILKSHOPS, AND DAIRY CATTLE.

The following Table, compiled from the District Medical Officers' Reports, shows the amount of inspection in each District in 1916:—

	Number of Cowkeepers and Milksellers on Register.	Number of Premises.			Number of Inspections.	Defects Found.										Number of Notices, verbal or written.	Number of these Notices complied with.	Number of defects found and not yet remedied.
						In Cowsheds.						In surroundings of Cowsheds.	In sanitary condition of drains.	In sanitary conditon of Milkshops.	In Water Supply.			
		Cowsheds.	Dairies.	Milkshops.		Floor or Cubic Space.	Ventilation.	Lighting.	Structure of Floor.	Drainage.	Cleanliness.							
URBAN DISTRICTS.																		
Bishop's Castle ..	All duly inspected.																	
Bridgnorth	24	22	15	..	30	..	..	..	..	..	..	..	..	..	..	2	2	..
Church Stretton ..	All duly inspected.																	
Dawley	34	31	31	1	38	1	1	1	..	1	5	..	..	..	..	7	7	..
Ellesmere	7	7	7	1	2	..	..	..	..	..	..	..	..	..	..	14	14	..
Ludlow	3	3	4	2	18	..	..	..	..	1	..	..	1	..	..	1	1	..
Market Drayton ..	16	..	11	5	32	..	..	..	..	..	5	..	..	..	..	5	5	..
Newport	25	9	3	2	93	1	1	1	2	1	..	..	1	1	..	6	5	2
Oakengates	32	23	9	..	42	2	2	2	2	2	2	3	3	..	1	3	..	2
Oswestry	27	10	..	6	62	..	..	..	..	..	3	..	..	..	..	3	3	..
Shrewsbury	69	17	17	Premises periodically visited.							No	tices	co	mpli	ed with			
Wellington	13	9	1	3	47	..	..	..	..	2	5	2	2	..	..	9	9	..
Wem	14	11	4	..	60	..	..	..	1	1	3	3	2	..	..	6	6	..
Wenlock	Premises duly inspected.																	
Whitchurch	Premises duly inspected.							Cowsheds in good order and clean.										
RURAL DISTRICTS.																		
Atcham	223	Duly inspected and notices served where necessary.																
Bridgnorth	24	..	..	..	40	..	..	..	..	..	2	2	..	..	..	2	2	..
Burford	2	4	2	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..
Chirbury	Not received.																	
Church Stretton ..	All duly inspected.																	
Cleobury Mortimer ..	6	6	6	..	13	2	2	2	2	1	2	1	1	..	1	10	6	..
Clun	All duly inspected.																	
Drayton	73	..	..	..	73	..	3	1	..	4	9	..	..	..	..	17	17	..
Ellesmere	61	..	..	..	84	..	..	..	..	..	14	..	..	..	..	14	..	..
Ludlow	26	26	12	..	52	4	3	2	6	4	12	12	2	..	1	12	10	2
Newport	33	30	..	..	125	..	..	..	..	..	10	..	..	..	..	60	60	..
Oswestry	130	129	..	1	200	..	10	1	..	2	..	18	5	..	..	30	23	7
Shifnal	39	37	34	2	208	..	..	..	..	3	6	6	..	..	..	3	3	..
Teme	2	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..
Wellington	37	..	..	..	40	Premises in a fairly satisfactory condition.												
Wem	127	127	..	..	246	..	..	..	..	4	7	2	..	..	..	13	13	..
Whitchurch	Premises duly inspected.																	

FOOD AND DRUGS.

RETURN OF SAMPLES TAKEN BY THE SHROPSHIRE CONSTABULARY DURING THE YEAR 1916 FOR ANALYSIS UNDER THE FOOD AND DRUGS ACT.

Article.	No. taken.	Result.		Remarks.
		Genuine.	Adulterated.	
Brandy	2	1	1	Fined £5 10s. 6d.
Gin	1	1	—	
Rum	2	1	1	Fined £1 10s. 6d.
Whiskey	9	7	2	1 fined £5 10s. 6d. and 1 cautioned.
Margarine ..	12	12	—	
Butter	36	34	2	1 fined £5 0s. 0d. and 1 dismissed.
Loose Cocoa ..	3	3	—	
Coffee	8	8	—	
Cheese	4	4	—	
Flour ..	1	1		
Ground Ginger ..	5	5	—	
Lard	12	12	—	
Milk	84	71	13	1 fined £10 0s. 0d.; 2 fined £2 10s. 6d.; 1 fined £2 10s. 0d.; 1 fined £1 5s. 0d.; 1 fined £1 0s. 0d.; 1 fined 18s.: 1 cautioned and 5 no action taken, but a second sample taken.
Mustard	1	1	—	
Oatmeal	8	8	—	
Pepper	10	10	—	
Sugar	3	3	—	
Preserved Cream .	4	4	—	
Vinegar	1	1	—	
Sausages	6	6	—	
Salt Petre ..	1	1	—	
Tea	2	2	—	
Cream of Tartar .	2	1	1	Fined 15s. 6d.
Linseed Meal ..	1	1	—	
Jam	2	2	—	
	220	200	20	

The details of analyses of milk supplies are of interest and are given separately.

RESULTS OF ANALYSIS OF SAMPLES OF MILK SUBMITTED.

Fat.	Solids. not fat.	Preservative.	Remarks.
Per-centage.	Per-centage.		
1.61	4.13		46% deficient in fat and 51% added water.
2.96	8.38		1½% added water.
2.79	8.41		7% deficient in fat.
2.89	8.71		3.6% " "
5.14	8.86		
3.06	7.88		7.5% added water.
2.46	6.8		20% " "
2.98	7.98		6% " "
3.39	8.71		
3.4	8.62		
3.74	8.7		
3.59	8.75		
3.4	9.04		
3.13	8.83		
3.4	8.62		
3.9	8.54		
3.73	8.71		
3.26	8.82		
3.4	8.86		
3.67	8.81		
3.9	8.62		
3.3	8.72		
3.74	8.9		
3.42	8.46		
3.7	9.3		
5.61	8.61		
3.05	8.13		4% added water.
3.82	8.64		
3.18	8.8		
8.21	8.23		
3.23	9.13		
3.76	9.02		
3.17	8.99	Nil.	
3.37	8.79	"	
3.22	9.2	"	
3.01	8.97	"	
3.33	8.87	"	
3.37	8.83	"	
2.89	8.47		3½% deficient in fat.
2.72	8.36		9% " "
2.76	8.98	Nil.	8% " "
2.4	9.24	"	20% " "
2.89	8.47		3½% " "

Fat.	Solids not fat.	Preservative.	Remarks.
Per-centage.	Per-centage.		
3.2	8.8		
3.12	8.56		
3.66	8.9		
3.4	8.72	Nil.	
3.82	8.7	"	
3.13	8.53	"	
3.24	8.32		
3.37	8.93	Nil.	
3.5	8.92	"	
3.05	8.89	"	
3.3	8.9	"	
6.23	8.63		
2.98	8.8		
3.17	8.91		
3.5	9.08		
3.32	8.86		
3.26	8.96		
2.44	8.72		18½% deficient in fat.
2.98	7.78		8.4% added water.
3.58	7.56		11% " "
3.66	8.8		
5.9	9.18		
3.04	8.76		
4.38	8.52		
4.83	8.51		
4.2	8.38		
3.87	8.69		
4.01	8.67		
3.13	8.63		
4.32	9.12		
3.7	8.44		
3.5	8.82		
3.47	9.17	Nil.	
3.37	8.53	"	
3.97	8.91		
4.48	8.98		
3.94	9.06		
3.63	8.97		
3.53	9.11		
3.34	9.04		
4.15	8.69		
3.24	8.8		
2.55	8.83		15% deficient in fat.

REPORT OF ADMINISTRATION IN CONNECTION WITH THE PUBLIC HEALTH (MILK AND CREAM) REGULATIONS, 1912, IN THE COUNTY OF SALOP, FOR THE YEAR ENDED DECEMBER 31ST, 1916.

1.—*Milk : and Cream not sold as Preserved Cream.*

	Number of samples examined for the presence of a preservative.	Number in which a preservative was reported to be present.
Milk	17	*Nil.*
Cream	0	*Nil.*

2.—*Cream sold as Preserved Cream.*

(*a*) Instances in which samples have been submitted for analysis to ascertain if the statements on the label as to preservatives were correct.

(i) Correct statements made	4
(ii) Statements incorrect	0
Total	4

(*b*) Determinations made of milk fat in cream sold as preserved cream.

(i) Above 35 per cent.	4
(ii) Below 35 per cent.	0
Total	4

(*c*) Instances where (apart from analysis) the requirements as to labelling or declaration of preserved cream in Article V. (1) and the proviso in Article V. (2) of the Regulations have not been observed.

Nil.

3.—*Thickening Substances.* Any evidence of their addition to cream or to preserved cream.

Nil.

MIDWIVES ACT.

Under this section it has been the custom to deal not only with the inspection of midwives but also with their distribution and supply. The supply of midwives has been made one of the important points of the maternity and child welfare scheme of the Local Government Board, and is dealt with in this report under that heading. The statements showing the ages of the midwives and size of practice of midwives are continued and brought up-to-date. They throw considerable light upon the condition of the midwifery service studied both from the economic standpoint and that of efficiency.

When the Midwives Act came into operation a great effort was made in this County to get the majority of women then practising on to the roll in order that they might be kept under supervision and taught so far as it was possible to do so. As a result, considering the population of the County, an unusually large number of midwives were enrolled. The advisability of such a policy was questioned at the time, but there can be little doubt that it has proved correct. Some of the old midwives were capable of little improvement but taken as a whole the improvement that has taken place, under the very patient and careful supervision of the Inspector of Midwives has been very marked.

Routine Work under the Act:—

Year.	Number of Midwives practising in the County in June of each year.	Number of Visits paid.	Notifications of having sent for medical help.	Notifications of still-births.		Notifications of death of mother or child with no medical man in attendance.
				By Midwives	By Parish Clerks.	
1905	231	642	83	38	—	5
1906	345	829	325	105	—	13
1907	328	837	385	95	227	16
1908	310	868	504	91	220	13
1909	309	885	533	111	195	9
1910	321	711	516	90	166	8
1911	293	840	515	81	154	23
1912	284	770	555	86	170	16
1913	275	743	496	94	140	10
1914	260	695	539	100	122	11
1915	260	756	435	86	109	12
1916	252	849	518	69	93	11

The returns sent in by the certified midwives, although incomplete, show that they attended 3,351 births in 1916 out of a total of 4,682, leaving less than 1,331 or 28 per cent. to be attended by medical men and uncertified midwives.

The Inspector at her visits satisfies herself with regard to the condition of the bag, appliances, dresses and aprons, the keeping of the register and records, and she gives instructions to the midwives whenever necessary, on the essential matters concerning their practice.

Very marked progress has been made by the midwives in the manner in which they take and record the temperature and pulse.

The proper feeding of infants is made a matter of personal instruction. This work of midwives is immediately followed up by health visitors provided by the County Council. It is anticipated that consultations between the health visitors and the midwives on infant feeding will have a very good effect, and endeavours are made and will be increased to get the midwives to attend the maternity and child welfare centres, both to give information and receive advice. Thus a closer co-operation will be established.

Notification of Still-births.—Still-births when attended by a midwife without a doctor have to be notified under the midwives' rules to the Local Supervising Authority. In addition all still-births have to be notified under the Notification of Births Act, by the doctor, midwife or other person, to the authority under the Act, which for all Shropshire with the exception of the Borough of Shrewsbury, is also the County Council. The old arrangements for notification by Parish Clerks and Clergy is also still in force in many districts. These additional sources of information have proved of considerable value and it is probable that we are now getting a fairly complete notification of still-births.

So far it has not been possible to make systematic inquiries into still-births through the health visitors, but it is hoped that this will shortly be done.

Analysis of the 69 notifications of still-births sent in by midwives show that—
31 were at full time; 36 premature; in 2 no statement.

The condition of the child pointed to—

Death during labour or shortly before in 30; death some time before labour in 34; in 5 there was no indication given.

The presentations were :—head 49, breech 4, footling 7. In 3 cases the presentations were not mentioned, and in 6 cases the child was born before the midwife's arrival.

The sex of the children was as follows :—males 39, females 30.

These figures, although incomplete, are of some value in showing the number of children that might have possibly been saved if skilful attendance had been available at the time of confinement.

The prevention of still-births is a part of the general question of the care of women during pregnancy, and will receive attention under the scheme of Maternity and Child Welfare.

As a proportion of cases of miscarriages and still-births are due to venereal diseases and can be prevented by suitable treatment from occurring in subsequent confinements, it is most important that inquiries should be so directed that these cases shall have appropriate treatment.

This work may be helped forward by the knowledge obtained from analysing the notifications of still-births and miscarriages that have occurred during the past few years.

Puerperal Fever.—Nine cases were notified, compared with 12 in 1915. Four cases were attended by untrained certified midwives, two by trained midwives, and one by a medical practitioner alone. Two were attended by medical practitioners and midwives together.

Present Supply of Midwives.—In June, 1917, there were 251 midwives registered as practising in the County, compared with 252 at a corresponding period in 1916.

As previously pointed out one can only estimate the real supply by considering the age, training, and general capabilities and distribution of midwives. A fresh estimate, necessarily only approximate, has been made of the number of midwives at the various ages. It is estimated that out of a total of 251, there are 128 over 50 years of age. Of this number, about 62 are over 60, and 31 over 70 years of age. Of those over 70 years of age one is 77, two are 79 and three are over 80.

Of the 251 registered midwives, 126 are properly trained, and the remaining 125 are on the roll because they were in practice twelve months before the passing of the Act This is the first year that the trained midwives have been in excess of the untrained ones. The number of trained midwives on the roll on June 1st, 1917, was five more than in the previous year. The numbers since 1907 are :—June 1st, 1907, 70; 1908, 73; 1909, 81; 1910, 93; 1911, 89; 1912, 105; 1913, 102; 1914, 110; 1915, 120; 1916, 121; 1917, 126.

In the same years the untrained midwives have decreased :—1907, 256 ; 1908, 237 ; 1909, 228 ; 1910, 228 ; 1911, 204 ; 1912, 179 ; 1913, 173 ; 1914, 150 ; 1915, 140 ; 1916, 131 ; 1917, 125.

MIDWIVES GROUPED ACCORDING TO NUMBER OF CONFINEMENTS THEY ATTENDED IN 1916.

(*a*) TRAINED MIDWIVES.

Number who have not sent in returns of confinements	15
,, ,, attended no confinements	5
,, ,, ,, less than 10 confinements	41
,, ,, ,, between 10 and 20 confinements	37
,, ,, ,, ,, 20 and 30 ,, ...	14
,, ,, ,, ,, 30 and 40 ,, ...	5
,, ,, ,, ,, 40 and 50 ,, ...	2
,, ,, ,, ,, 50 and 60 ,, ...	2
,, ,, ,, ,, 60 and 70 ,, ...	1
,, ,, ,, ,, 70 and 100 ,, ...	2
,, ,, ,, ,, over 100 ,, ...	1

(*b*) UNTRAINED MIDWIVES.

Number of Midwives who have not sent in returns of confinements	18
,, ,, ,, ,, attended no confinements	10
,, ,, ,, ,, ,, less than 10 confinements	60
,, ,, ,, ,, ,, between 10 and 20 confinements ..	32
,, ,, ,, ,, ,, ,, 20 and 30 ,, ..	8
,, ,, ,, ,, ,, ,, 30 and 50 ,, ..	5
,, ,, ,, ,, ,, ,, 50 and 70 ,, ..	3
,, ,, ,, ,, ,, ,, 70 and 100 ,, ..	3
,, ,, ,, ,, ,, ,, over 100 ,, ..	1

It is obvious that only a small number of the midwives can possibly make a living by midwifery alone.

An analysis of the returns sent in by the midwives shows that :—

1,665 confinements were attended by untrained certified midwives.
1,686 ,, ,, ,, trained midwives working under an association or employed by private persons.
618 confinements were attended by trained midwives working on their own account.

Cases brought before the Local Supervising Authority :—

Alleged Offence.	Action Taken.
1.—Refusal to keep records of pulse and temperature for the Inspector of Midwives and when applied to, did not give an undertaking that records would be kept. Rules 13/24.	Correspondence to be sent to Central Midwives Board. The Board considered case proved and cautioned midwife as to the strict and prompt observance of the rules in future.
2.—Negligence in not staying with a patient until after expulsion of placenta. Rule 6.	A *prima facie* case of negligence was found and it was decided to submit the case to the Central Midwives Board. Board considered case not proved.
3.—Not sending for medical help in two cases of ophthalmia neonatorum and not attending sufficiently long in one case. Rules 20 (5) and 11.	Midwife attended and was severely censured.
4.—Non-notification of sending for medical help. Rule 21 (1) (a).	Cautioned.
5.—Not sending for medical help for a child suffering from ophthalmia neonatorum. Rule 21 (5).	Midwife attended and was cautioned.
6.—(1) Not sending for medical help for a child with discharge from the eyes. Rule 21 (5). (2) Not attending patient for 10 days after confinement. Rule 12.	Cautioned.
7.—Not sending for medical help sufficiently early for child suffering from a swollen and discharging eye. Rule 21 (5).	Cautioned.

Alleged Offence.	Action Taken.
8.—(1) Not sending for medical help for child with discharge from eyes until about 19 days after noticing it. Rule 21 (5). (2) Not Notifying Local Supervising Authority of sending for Medical help when obtained. Rule 22 (1) (a).	A *prima facie* case of negligence was found. Midwife reported to Central Midwives Board. The Board found the case proved, and the sentence was postponed for further reports.
9.—I. (1) Not sending for medical help sufficiently early for child with discharge from eyes. Rule 21 (5). (2) Not notifying Local Supervising Authority of sending for medical help when obtained. Rule 22 (1) (a). II. Not sending for medical help for a child suffering from a discharge from eyes. Rule 21 (5).	A *prima facie* case of negligence was found. Midwife reported to Central Midwives Board. The Board found the case proved, and the sentence was postponed for further reports.
10.—Not sending for medical help sufficiently early although child had discharge from eyes. Rule 21 (5).	Midwife attended and was severely censured.
11.—Not sending for medical help sufficiently early for child with discharge from eyes. Rule 21 (5).	Midwife attended and was cautioned.

CO-OPERATION BETWEEN THE CIVIL AND MILITARY SANITARY SERVICES.

Co-operation between the civil and military sanitary services has continued satisfactorily. The interchange of notification of infectious disease has been continued with benefit on both sides. The camps have been visited on many occasions both by the District Medical Officers and the County Medical Officer, and suggestions for improvement have been made where necessary. The sanitary services at both the large camps have been efficiently maintained and the civil population have not been materially affected by their proximity.

The high mortality, principally from lung disease at the camps in the winter and spring of 1917 was the subject of a special report by the County Medical Officer of Health. The points which seemed to him of the greatest importance in preventing excessive mortality in such an epidemic were the better ventilation of the huts and the removal of the cases to hospital in the earliest stages. The report was sent to Deputy Director of Medical Services, Western Command; War Office, and Local Government Board, and special attention was called to the recommendation for improving the ventilation of the huts.

The following quotations from the reports of the Medical Officers of Health for Shrewsbury and Whitchurch show some of the matters that have arisen :—

Whitchurch Rural.—Two cases of small-pox were notified and both cases removed to the Whitchurch Joint Small-pox Hospital. One was eventually diagnosed as chicken-pox. The other was a recruit joining from Lancashire.

There was an outbreak of scarlet fever—dealt with in the Camp Hospital ; also a case of enteric fever and some cases of cerebro-spinal fever—dealt with in the same hospital.

Camp Sanitation.—" The system of scavenging latrines described in last year's report has continued, the Council undertaking the work which is carried out by a Contractor under the supervision of the Surveyor. The County Medical Officer and I visited the Camp and disposal fields periodically for inspection and found the work general satisfactory. Attention at one time had to be called to the neglect of proper cleansing of the pails by the Contractor, and at another to defective methods of carriage of the excreta, resulting in spillage on the way to the trenching field. Both matters were found to be remedied on subsequent visits. The dosage of the pails with cresol solution and the cleanliness of latrines were found to be well maintained by the military."

Whitchurch Urban.—" Notices are at once sent to the Senior Medical Officer at the Camp of all notifications received. On the occurrence of an outbreak of Small-pox in the Camp in February the Inspector, at my request, warned all tradesmen and employees visiting the Camp, advising prompt vaccination. The warning and advice were repeated in June when information was received as to recruits coming in from an infected area, and in July when a second notification of Small-pox (afterwards withdrawn) was received from the Camp."

Whitchurch Urban.—" Water Supply.—It came to my knowledge in May that the Military Authorities proposed to place a temporary (tent) Camp for Musketry practice at Fenn's Bank, and that the site proposed to be used formed part of the gathering ground of the town's water-supply. I arranged with the County Medical Officer and we visited the site together. After careful inspection we were of opinion that the establishment of a Camp on this site would be a danger to the town, and we considered the field should not be used for the purpose. We reported in these terms to the Officer in Command and drew attention to an alternative and quite safe site near by. The suggestion was adopted and the Camp installed on the site we recommended, the Surveyor arranging for the supply of water to the Camp from the Council's water-works.

" Army Food Supplies.—Much attention has been given by the Sanitary Inspector to the inspection of places in the town where food is prepared for the Camp. This entails a considerable amount of regular supervision. Lists of firms preparing or supplying foods have been received from the Department of the Chief Inspector of Foods, L.G.B., and an Inspector from this Department visited the town on two occasions for inspection and called attention to some matters requiring improvement in one or two bakehouses. The Sanitary Inspector gave attention to these and reports that their present condition is satisfactory."

Shrewsbury.—The civil and military sanitary services have continued to work together in harmonious co-operation.

Shrewsbury.—Food Preparation.—The premises have been inspected as regularly as possible. The most serious case requiring action was with regard to sausage making being carried out in a dirty and badly lighted and ventilated cellar. This cellar has been abolished.

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